Handbook of Research on

The Role of Libraries, Archives, and Museums in Achieving Civic Engagement and Social Justice in Smart Cities

Mohamed Taher

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Handbook of Research on the Role of Libraries, Archives, and Museums in Achieving Civic Engagement and Social Justice in Smart Cities

Mohamed Taher
Canadian Multifaith Federation, Canada

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Advance Praise

Rich and very impressive collection of twenty-two well written chapters by experienced professionals from Africa, Asia, Europe, North America, Australia, New Zealand, and Oceania. The book first of its kind In library literature covers Libraries, Archives, and Museums is full of very important information including a world survey on COVID 19. Dr. Mohamed Taher, a well-known author and editor as usual has done a commendable and excellent job of editing this important book. It is recommended highly for all collections.

Ravindra N. Sharma, Ph. D.
Dean of Library (Retired)
Monmouth University, USA

To both scholars and happy amateurs, the most sacred object presented to them is narrative: particularly when the narrative is bound in books. Since before the Great Library at Alexandria, the curating of knowledge has been a principal trust in the lives of great cities. In this magisterial new volume from CMF, Mohamed Taher and his talented crew of researchers, writers and visionaries have revisited the nature, focus and future of libraries, archives and museums, virtually and visibly, and addressed a multitude of questions and challenges raised by the advent of smart cities. The work is global, comprehensive and cross-cutting. The book's four sections provide ample food for both thought and action. Taher's multifaith foundations lay the groundwork for an approach that comprehends Equity, Diversity, Inclusion, and Access. The reader may anticipate a tour de force and an instant classic.

The Rev. Pref. Dr. James Christie,
Ambassador-at-Large, Canadian Multifaith Federation
Co-editor, Religious Soft Diplomacy and the United Nations.
Lexington, NY, 2021

Role of Libraries, Archives, and Museums This is the best book on Libraries, Archives and Museums to achieve social justice and civic engagement. A global survey presented here brings forth the deep insights of what and how the LAM professionals perceive the change at their institutions. The book provides exhaustive information in four sections namely LAM in the Workspace: Weaving Equity, Diversity, Inclusion and Digital Identity; LAM in the Community: Weaving Inclusive Participation in Practice. LAM in the Community: Weaving Inclusive Participation in Theory; LAM in the Community: Weaving Digital Twins as Best of Both Worlds in Smart Cities. This text will serve as a thorough reference on its main topics for researchers, LIS professionals and students. Dr. Mohamed Taher deserves all the appreciation.

Prof S. L. Sangam Former UGC Emeritus Fellow, Professor and Head, Dean Faculty of Social sciences, Karnatak University, Dharwad 580003 India

The volume is a valuable source of cutting-edge, tools and interventions for metainformation management and cultural empowerment within the LAM community. Readers will be guided towards professional practices embedded in deeper levels of human experience and connection.

Vanda Vitali, Ph.D.
Vice president
Culture and Development International Initiatives

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Chapter 1

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> *Indah Novita Sari, Universitas Gadjah Mada, Indonesia*
> *Regina Dwi Shalsa Mayzana, Universitas Gadjah Mada, Indonesia*

Conservation is a type of work which requires specific skills, a lengthy experience, particular infrastructures, and arguably extensive time and money. In fact, preserving collections by managing all the aspects required is an important and mandatory task. However, as a developing country in tropical climate, Indonesia is still in a phase where financial aid, skillful experts, and moral support for preserving the cultural heritage are much less than needed. As a result of complex organizational dynamics, building a formal partnership for frequent collaborative conservation work between archives, libraries, and museums nevertheless is far from simple. On the other hand, engaging the community to participate in the practice is particularly challenging due to the nature of conservation work as an isolated activity within an exclusive ecosystem. This chapter aims to discuss whether developing community engagement and collaboration between LAM can serve as an alternative support to constructively improve current conditions and cope with the aforementioned issues.

Chapter 2

> *Mohamed Taher, Canadian Multifaith Federation, Canada*

Attempts to integrate the twain (i.e., social justice [SJ] and civic engagement [CE]) are slowly emerging. This chapter critically explores the tools for inclusivity and engagement -- to facilitate developing digital literacies for an integrated program. Among the roles of LAM, such as, literacy, collaboration,

outreach, advocacy, etc. this chapter deals with digital literacies -- the aim is to reduce the digital divide between haves and have-nots. The digital divide became most obvious during COVID-19, and therefore this dimension is the focus. The method adopted is a semi-automated strategy to support a rationale for analysis and validation of its findings. Strongly recommends the need to conduct COVID-19's impacted digital exclusion areas -- with due consideration for the work done at New Literacies Research Lab at the University of Connecticut. A combined quantitative and qualitative assessment will be required to remove the digital inequalities.. An innovative approach for data visualization is provided. It is a faceted technique developed by Dr. S R Ranganathan (viz., PMEST – personality, matter, energy, space, and time).

Section 2
LAM in the Community: Weaving Inclusive Participation in Practice

Chapter 3

Amatul Momin, Toronto Public Library, Canada

This chapter intends to explore the history of social justice in libraries, archives, and museums (LAM) in general and social inclusion in particular. The value of this chapter is in the identified indicators, also known as characteristics (e.g., title words and its relation to citation behavior) in the current literature. A profile of over 500 articles, from 2001 to 2021, is analyzed. Journal articles from 2016 to 2021 are used to test three hypotheses. The findings of this study facilitate in understanding the emerging themes and interdisciplinary areas in the field of social justice.

Chapter 4

Roderic Vassie, Independent Researcher, UK

False claims disseminated on social media by extremists can convince ordinary people not just to sit in their armchairs and rage at the violence of one side or another but to leave their homes either to riot at the Capitol in Washington, DC, for example, or to sneak over international borders in order to join the so-called "Islamic State." Governments' softer counterextremist policies may focus on messaging but tend to overlook the specific claims aimed at those vulnerable to radicalisation. Furthermore, general lack of trust in officialdom can undermine its messaging or even serve to bolster the extremist "us and them" narrative. This chapter suggests that, by harnessing their specialist information literacy knowledge and skills, librarians can build on their positive social capital and assume an active role in developing in their users the critical thinking and awareness necessary to identify and expose misleading extremist propaganda, thereby helping to make their local communities safer.

Chapter 5

Soma Ghosh, Salar Jung Museum, India

This is an analytical review of engagement and outreach of Salar Jung Museum Library's collection (MSS, printed, and digital). The chapter aims to visualize the benefits of being located in a heritage

city, viz., Hyderabad, in India. The method adopted is first to trace impressions of researchers and scholars and second to gather data of its presence in libraries across the world. Tracing such variety and distinctness will open doors for further exploring the impact factors. The original collector, viz., Salar Jung, had open doors for diversity and open mind to welcome all cultural depictions of the world. Its diversity is evident in artifacts and resources that represent samples from East and West. So also is its inclusiveness – the entire collection is without bias of gender, race, or religion. The data analysis shows the engagement in heritage building is reciprocal. A study in the post-COVID era with a larger variety of data (viz., survey, virtual visits, digital impression) will reveal the full picture of reciprocity and will also highlight the actual needs and demands.

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Suchismita Majumdar, Sir Gurudas Mahavidyalaya, India

Extension and outreach services of libraries, archives, and museums (LAM) are to be essentially considered as an important aspect of social and ethical responsibility of an institution towards the society. An academic library, especially a college library, has immense scope for engagement of the community constituting the stakeholders of the institution for participation, involvement, skill development, and enrichment as well as the individuals outside the institution, ultimately towards inclusion, empathy, and compassion for the society at large. Exemplary evidences of the opportunities and accomplishments of a college library with special reference to the extension and outreach activities of Sir Gurudas Mahavidyalaya, Kolkata, West Bengal, India are provided. Innovation, collaboration, communication, creativity, and effective employment of ICT tools are the keys to successful execution.

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Digital Divide Among the Tribals of Kerala: A Comparative Study of Kannavam and Thavinjhal Village 139
Ramya A. V., Department of Library and Information Science, Kannur University, India

In the present society, the real apartheid is not between the racial or ethnic groups but between the ability to access and use the new modes and forms of information and communication technology. The gap between the ready availability of technology and those who do not have access to the computers and internet is called the digital divide. The society with high digital divide has social, financial, and political instability. The role of libraries as community information centers in rural and tribal regions will help to reduce the digital divide. The study identifies capacity building of rural people to make use of ICTs is crucial to solve the problem. This chapter focuses on the digital divide in the two tribal regions in Kerala, namely Kannavam and Thavainjal Panchayath, India. The quantitative comparative data of the factors affecting the digital divide, barriers for ICT access, the role of social media usage in reducing the digital divide in both the villages are quantitatively compared in this chapter.

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Chaminda Chiran Jayasundara, University of Kelaniya, Sri Lanka

This chapter explores what Human Rights Literacy (HRL) involves and how it establishes and develops improved rights of the citizens supportive to social justice in the society. People with different cultural

backgrounds have the fundamental right to be literate members of society. However, due to various cultural influences, this right is somewhat restricted to certain individuals. For example, girls' education has become controversial in some lands. There are still instances in some cultures where people of all walks of life, such as LGBTI, Blacks, Indigenous people, migrants, etc., are helpless in the face of their rights. Thus, legal literacy and its unique component of human rights literacy are essential to ensure the protection of human rights. A theoretical framework is eventually drawn up by summarising the findings of the study.

The new information age technologies influence and shape the social and business life of individuals. Technological changes and their impact on business and society are also seen in cities, countries, and even on a global scale to use resources efficiently and to increase social welfare. As the internet is a fast and convenient communication tool, it is important to make correct decisions by distinguishing functional information while adapting to this change. In the process of digitalization, it is necessary to cooperate with libraries and other memory institutions to interact with digital cultural heritage in obsolete or inaccessible formats. From this point of view, the smart cities are seen as the reflections of digitalization on social life; then the difficulties and opportunities encountered in the process are mentioned in this chapter. In this way, information awareness which can directly affect the level of the ability to use information effectively is expected to increase in the digitalization process.

Section 3
LAM in the Community: Theory Relating to Facets

Libraries provide services for anyone, regardless of their social or economic interests, so that they have a non-discriminatory nature in providing good services in the library. Rural library into the container provision of reading materials as a source of education and community empowerment. Facing COVID-19 is not easy. It becomes a challenge for community to stay active and productive. Social inclusion has been introduced in many public libraries in Indonesia. Through this social inclusion, the library wants to further improve the welfare of community, especially in the rural areas. This chapter discusses the conceptualization of information for development which accommodates the concepts of advancement of literacy and development information for the community. The purpose of this service is to be able to provide services to rural communities so that it is easier to access information.

This research is a case study that explores the dissemination and learnings of information which takes place in a diaspora organization in Toronto, the Kutchi Cultural Association. As a community of first-generation immigrants in Canada, the informal settings and learnings within this organization play an important role in their settlement process and build a sense of shared efficacy. The diaspora gatherings become the quintessential point of community engagement where knowledge is transferred and shared. This exploratory research discovers how information and learnings flow both within the organization as well as with mainstream institutions such as the libraries, archives, and museums. It highlights a missed opportunity for mainstream institutions of engaging such diaspora organizations that play a significant role in the sharing and gathering of information, albeit veiled and unaccounted for through official means and calls for more extensive research on the subject.

Chapter 12
Nkholedzeni Sidney Netshakhuma, University of South Africa, South Africa

The chapter assesses the role of institutions of higher learning in designing education curriculum in collaboration with the library, museum, and archives (LAMs) of the Stevenson Hamilton Knowledge Resource (SHKR) center based at the National Park. This research is based on a qualitative research method. The finding of the NP case study underpins concepts and outcomes described in academic discourse on the relationship between institutions of higher learning and LAMs. LAMs may serve as lifelong learning in South Africa. The results of empirical research allow the researcher to conclude that designing educational materials requires the collaboration of the Ministry of Basic and Higher Education, Training, Science, and Technology and LAMs.

Chapter 13
Abduraheem K., Aligarh Muslim University, India
Jahangeer Sheri, Aligarh Muslim University, India

The digitization of cultural heritage in museums, archives, and libraries is the most important aspect of the digital era. The preservation of cultural heritage is the most important function of the museums, archives, and libraries, so that it can be transmitted to the future generation. The digital materials gathered for multiple storage systems including offsite storage, cloud storage, and so on are necessary to save it from the disasters like floods, fire, earthquakes, tsunami, natural aging, and other factors of deterioration. Digitization is imperative for the modernization and application of all types of technological advancements in various institutions. There are numerous software, hardware, tools, and techniques available for digitization which are described in detail as follows. The information about digitization has been compiled by literature survey and details of the same have been given in the references.

Chapter 14
Shipra Awasthi, Jawaharlal Nehru University, India
Shiva Kanaujia Sukula, Jawaharlal Nehru University, India

With the awareness and proliferation of technology, the smart approach is possible to build a learning system or a smart city. The study aims to present the involvement of digital literacy in academics, making youth smart citizens, and assessing the continuous efforts at different levels. The study highlighted the mechanisms adopted by the libraries, such as training and other programmes, to enhance the digital literacy of the citizens. The chapter spotlighted the inclusion of digital literacy in academics, and with the adoption of digital solutions, young learners can become smart citizens. It also throws light on the impact of digital literacy during COVID-19 and digital literacy activities at JNU Central Library. A glimpse of the practices and measures adopted by the academic libraries to enrich the youth to make them smart citizens is provided, and a case example of an academic library (i.e., Jawaharlal Nehru University [JNU] Central Library) is considered for the study. Digital literacy has become an integral part of the youths' lives, and it supplements in making youth smart citizens would lead to smart city development.

A Whole Person Approach (WPA) can be used in various parts of LAM (Libraries, Archives, and Museums) sector to provide effective services for underserved groups of society to achieve civic engagement with the communities it serves. WPA is a relatively new theoretical framework in the fields of social science and healthcare. It highlights the necessity and importance of having a holistic view in dealing with different life matters and challenges. This chapter focuses on the special services that LAM sector can offer to facilitate the way towards achieving the goal of enhanced civic engagement, as serving the unserved groups of society is an urgent priority for the sector. Several Creative strategies will be discussed that can be implemented in the current services to make sure the special needs of communities that a sector serves are considered and met. A limitation of this chapter is that it is not a case study, nor is it based on field experiences. It is in fact a critical exploration of the concepts to facilitate in building a theory in an interdisciplinary perspective.

This chapter traces the actualities and possibilities of representing social justice and social equity concerns in LIS via extending Ranganathan's five laws of librarianship within today's contemporary neoliberal and geopolitical realities. Blinders in librarianship are identified in its resistance to intentional, systematic, action-oriented, community-engaged, and impact-driven strategies of social justice and real change owing to its White-IST (white + elitist) roots. These are speculated in relation to the profession's undervaluing of Ranganathan's contributions because of his South Asian (i.e., East Indian) origins as a result of the pedestalizing of its Anglo/Eurocentric components within the legacies of a colonized and imperialistic world order. A manifesto of social justice laws of librarianship is proposed to address past and recent lapses in LIS.

Section 4
LAM in the Smart City

Chapter 17

Adebowale Jeremy Adetayo, Adeleke University, Nigeria

Climate change, poverty, and economic inequality are some of the threats to civilization in today's cities. This has given rise to the development of smart cities as a solution to the threat. However, this smart initiative did not solve the problem. In the face of this predicament, in order for cities to maintain their position, civic engagement must be undertaken by involving citizens in finding a collective solution with the support of smart library. Cities cannot plan or position themselves effectively until they grasp and exploit the existence of the smart library. The chapter explores the practical application of smart libraries to civic engagement. It identifies smart library strategies for building civic engagement in smart cities. The chapter also identifies possible challenges to smart library initiatives in smart cities and makes recommendations.

Chapter 18

János Fodor, Eötvös Loránd University, Hungary
Péter Kiszl, Eötvös Loránd University, Hungary

Creating the complex service system of smart cities provides a new opportunity for the proportion and composition of available digital services to serve the satisfaction and the optimal functioning of society. Shaping the network services provided by LAM institutions is just as important in the social life of smart cities as defining the roles of public institutions. The authors of this chapter seek to identify how digital repositories can be effectively interpreted as modules of a complex service system. Five different module models are introduced based on the projects conducted by the Institute of Library and Information Science of Eötvös Loránd University in Budapest, Hungary. These modules, focusing on different aspects of user interest and activity, are suitable for strengthening social cohesion in the everyday life of smart cities by involving cultural heritage.

Chapter 19

Saima Qutab, University of Auckland, New Zealand
Syed Adnan Adil, Systems, Subscriptions & Licensing, Library and Learning Resources,
London South Bank University, UK
Lesley Gardner, University of Auckland, New Zealand
Farasat Shafi Ullah, Auckland Council, New Zealand

The concept of smart cities is gaining popularity within academic, practice, and policy circles. Smart cities are intended to be self-sufficient via cutting-edge technologies, purposive innovations, and inventions. However, while technology is growing at an unexpectedly fast pace, one of the essential components of smart cities 'humans' is lagging behind. The need for and scope of literacies to survive in smart cities pose challenges for their citizens. This study aims to identify the range of literacies required in smart cities

and the roles of libraries, archives, and museums (LAM) in supporting citizen literacies for social and digital inclusion. The LAM sector is one of the major stakeholders in the digital transformation sphere. Therefore, the LAM sector must identify the nature of required literacies, the roles and strengths of other stakeholders, and the opportunities to increase its presence in the process. This study systematically identifies and addresses these issues through a conceptual framework process and proposes future research directions for the LAM sector.

Sarah Goodyear, University of Alberta, Canada

As smart technologies become more integrated with daily life, vital digital literacy skills are necessary for citizens to engage with and benefit from their cities, local government, and economy. Libraries play an important role in mitigating the growing wealth gap in our communities, especially as it relates to opportunities provided by emerging technologies. With the call for smart city proposals in Toronto, Ontario, what role will the city's LAMs have in collaborating with these future developments? The Toronto Public Library (TPL), a trusted public institution, has a stake in implementing various frameworks and collaborating with government agencies in addressing public concerns around technologies that collect personal information for various purposes and ensuring that vulnerable populations are not left behind. Following an examination of the role libraries play in mitigating consequences of the digital divide, this chapter will discuss the various ways in which TPL and similar community libraries have been involved with digital literacy and inclusion. It will also explore how TPL has been identified by government agencies as a vehicle for civic engagement and oversight in the former Sidewalk Toronto smart city plan.

Mariam Bhanu, Central University of Tamil Nadu, India
V. K. Dhanyasree, Central University of Tamil Nadu, India

Smart cities are modern concepts that aim to provide better living conditions to their citizens by creating a sustainable environment. Citizens are the key partners behind the development of a smart city. They have to be aware about the civic duties and responsibilities towards the community. In this chapter, the authors analyze the concept of smart cities and what are the issues and challenges in India for developing a smart city. The authors also examine various civic engagement initiatives by the government of India. The objective of this chapter is to find the role played by public libraries in creating smarter communities and how they will help in promoting civic engagement activities.

P.M. Naushad Ali, Aligarh Muslim University, India
Daud Khan, Aligarh Muslim University, India

The objective of this study is to examine people's attitudes towards fake news and tactics to counter disinformation in India. A national survey through an online questionnaire was conducted through which 200 respondents recruited in the study through snowball sampling technique. The results of the study

disclose that more than 90% of the participants perceive that fake news poses a threat, and 78.5% see fake news as harming democracy. Religious harmony and voting decisions are the topmost areas of public life which are mostly targeted by fake news in India. Conspicuously, the top three agents creating and disseminating fake news are politicians, political parties, and journalists. The study's findings provide an insight into countering fake news in India. This study is useful to government agencies in formulating policies related to fake news.

Foreword

Smart Cities need libraries, archives, and museums (LAMs). As they confront the pandemic, economic hardship, fake news, misinformation, racial and ethnic divisions, political polarization, health disparities, educational gaps, digital inequality, declining trust in leadership and public alienation, smart cities are spawning noteworthy examples of LAMs joining forces to meet these challenges. In these perilous times, LAMs empower and bring communities together like no other institutions--both in person and online. They lead by providing access to authoritative diverse content as well as opportunities for people to exchange ideas. They enable strangers to get to know each other and listen to fellow citizens, fostering understanding and public discourse so citizens can make progress on solving their most critical public problems. They also bridge divides to ensure no one is left behind in the digital age.

Smart cities need *boundary-spanning institutions* to ensure that everyone learns, grows, and improves together. LAMs are uniquely positioned to provide perspective and a trustworthy array of facts and ideas. But when they go beyond informing by turning outward toward their communities, they transform them by engaging, embedding and partnering with local organizations to help local citizens realize their full potential. When they partner to achieve people's aspirations and tackle challenges, LAMs fulfill the promise that everyone—especially those marginalized from mainstream decision making—gain a voice and elevate their personal stories as part of the collective community memory.

Smart cities need *trusted institutions*—LAMs--to step forward and engage diverse citizens in new and inclusive ways, providing safe (and brave) spaces where they can share interests, concerns, and decision-making. But these institutions cannot undertake such initiatives alone. Instead, they need to collaborate *with* citizens, not just work for them, building strong collaborative partnerships that rekindle civil society, enable public participation, and increase social capital--the glue that bonds people together and builds bridges to a more pluralistic and vibrant civil society. LAMs are closely aligned with grassroots local actions that offer citizens opportunities to become full-fledged players by examining problems and finding solutions together. They enable diverse citizens to do the "public work" of discussing a wide array of concerns, finding common ground, and making decisions through small, informal groups like clubs, organizations, and other associations. And they provide welcoming civic spaces where citizens from all walks of life feel comfortable to make mutually beneficial choices, recognize possibilities, and co-create solutions. Catalytic LAMs bring communities together to learn, build collective knowledge, foster understanding and empathy, develop partnerships, and share leadership.

Smart cities need *social justice institutions* to design programs that overcome obstacles experienced by marginalized groups traditionally left behind. Committed to equity of access and inclusion, LAMs craft programs and services that ensure distributive justice—programs and services that widen participation in civic life, both in-person and virtually. Although LAMs proactively promote diversity, inclusion and

public participation, they have yet to guarantee a more open and equitable experience for all citizens across the globe. Nevertheless, by working together, they can demonstrate their capacity to amplify the voices of advocates for social justice, ensuring that smart citizens are not only well informed, but also deeply engaged and included in the public life of their communities.

Smart cities need *enduring anchor institutions* to address challenges associated with digital equity, access, and inclusion. For many years, LAMs have served as the only public access points for computer use and internet connectivity for many residents. During the Covid-19 pandemic and other natural disasters such as floods, drought, firestorms, hurricanes, and tornadoes, demand for universal access has soared. Increasingly LAMs have emerged as second responders, going beyond collecting by undertaking collaborative connectivity projects, developing strategies to bridge digital divides, expanding digital access, teaching 21st century skills, and ensuring equity, opportunity, and inclusion across communities.

This book shines a bright light on evolving trends where libraries, archives and museums have come to the forefront and stepped forward to claim an indispensable role ensuring more equitable and engaged smart cities. LAMs are building on their long history of civic engagement and social justice including facilitating community conversations, uncovering community aspirations and concerns, partnering to advance shared goals, teaching civic and digital literacy, bridging digital and literacy gaps, and preserving the extraordinary historic and cultural experiences of ordinary people. Each chapter in this enlightening book showcases meaningful ways LAMs have transcended more traditional outreach approaches by embedding and engaging with the civic life of diverse residents in their communities. Presented together, these entries illuminate and inspire an emergent narrative at the intersection of civic engagement, social justice, and smart cities. The compilation demonstrates how catalytic LAMs can transform lives, connect communities, and foster inclusion to enable a more just and brighter collective future for smart cities and their citizens.

Nancy Kranich
Rutgers University, USA

Nancy Kranich *teaches community engagement, information policy and intellectual freedom at Rutgers University and works on special projects with its libraries. After serving as ALA president in 2000-2001, Kranich founded ALA's Center for Civic Life and the Libraries Foster Community Engagement Membership Initiative Group. Trained as a public innovator with the Harwood Institute for Public Innovation, she has also served on the board of the National Issues Forums Institute and as co-leader of the U.S.-Russia Dialogue on the Civic Role of Libraries in the 21st Century. She earned an MPA from New York University, and an MA in Library Science and a BA in Anthropology from the University of Wisconsin-Madison.*

Preface

FOREGROUND

Libraries, Archives, and Museums (LAM) are converging to share the mission of collecting cultural and social information. And thereby efficiently facilitate access for engaging and empowering humanity. But then LAM's passion for digitization and compassion for digital inclusion of the have-not necessitates a balance using an IDEA (Inclusion, Diversity, Equity, and Access) lens. This balance is essential for LAM as a potential partner in Smart City planning and implementation. "A high variation in cost to access some types of social infrastructure, such as recreation facilities, or arts and culture venues, can restrict access to these services for lower-income households." (Australia, 2019.p. 392).

This book is an eye-opener on aspirations in management with equity, diversity, and inclusion. LAM has performed well in digitization and infrastructure. This is well documented and reported in publications. Whereas its infostructure (viz., management in non-technology areas: social, cultural, humanity, etc.) is not so well documented and least reported in publications. For instance, not much is reported by LAM, of LAM, or for LAM on the current status of digital inclusion or digital divide around the turbulent times (such as pre-COVID-19, during COVID-19, and post-COVID-19), as essential memories of the future (Kliuchko, 2021; p. 145). More specifically, in terms of health and wellness, and whole-person approach is the gap in the documentation and hence the value of this book. Rather than an oversight, it brings insight into this networked world – collaborating within LAM and with community groups. And this insight is particularly about two-way traffic, and is significant with its modern role in activism, to reduce bias, exclusion, and discrimination. Contextually it is about two paths, namely, in-reach (i.e., looking within the system, for introspection and compassion to treat with equity, inclusion, etc.), and other is outreach (i.e., reaching out to the community to serve everyone's needs).

In short, the focus assessed here is on the role of LAM's in achieving reciprocity in social justice (for example, treating others as we treat ourselves, and vice versa), and common ground in civic engagement (for example, participation and involvement as a means for the public good).

Outreach has a long history as part of the social mission of LAM. "Library outreach has its historical roots in the late 19th century public library movement that coincided with the progressive era when library services were conveyed directly to community members' homes and places of employment." (Frydman, 2019, pp. 1-10.). How old then is in-reach? It is not since the 19 or 20th century. "A recent trend has been to not only Outreach for equal rights and inclusion, but also inreach." (Gustina & Guinnee, 2017, pp., 1-8). "The American Alliance of Museums completed a national report in 2017 …a complete lack of diversity as being a top issue within the museum sector." (Jeffries, 2018).

This introspection, within the workplace, must be everywhere, i.e., in collection development, curation, bibliographic services (Leazer, 2021; library discovery. Reidsma, 2019; Diversity-Aware search, Denecke, 2012).), in managing people, etc. Are any of these a common practice to measure performance, individually or collectively? There is no answer to the above question because LAM as a group is still evolving; even individually there is a dearth of such information. And evidence-based studies that document in-reach, are also slow and still evolving. Hence, LAM needs a frequent reminder to redefine in-reach and improve human touch – including in dealing with staff, collection, services (seven dimensions are individually studied in Museums by Martins et al., 2021, in Libraries by Calvert, 2008, etc.). In short reminders to thought leaders (Mosley, 2011; Neigel, 2016;) red alerts (Mehra, 2021), Pushing the Margins (Chou et al., 2018); Interrupting epistemicide in information professions (Patin et al., 2021s), and Wake Up Calls (Jaeger, 2013), etc., must continue until there is full compliance with IDEA.

Here is an assessment of the digital tools, and resources for new landscape of online information literacy. This book also visualizes LAM's public manifestation via its website, for instance. And these assessments in the book are a mix of manual and automated tools. The 22 chapters with data, facts, and reports of best practices are contributed by researchers, faculty, practitioners from across countries and continents. It brings an emphatic voice, with an IDEA lens – and includes in-reach and outreach -pleading for better sensitivity and two-way traffic, open for all.

This book has inspiration from my alma mater. And from my students from whom I have learned a lot about the information, access, and discovery process.

In my LIS education, I was introduced to the evolution of reference work via two perspectives. First, it was about resources (i.e., human, institutional, and documentary) such as documents in libraries or as artifacts and objects in archives and museums. Second, it was practicum and tours that included Libraries, Archives, Museums (LAM's).

In theory, social exclusion was a familiar area. It was in the reference section of the library during the practicum that I visualized its true colors. The living memories in the library witnessed the value and spirit of human touch in reference service by a professional and paraprofessional. Of these two, when approached by a user, the normal response offered by the former was pointing a finger towards the area. He duly maintained distance with some (in the 1970s preparing us for the COVID-19s distancing). The latter served everyone not by pointing towards the direction like a GPS. He helped emphatically every inquirer walking with to the respective book stack & shelf to pick the desired resource.

And, this book has had its inspiration from inclusivity and engagement, while teaching the next generation. From students since the 1980s, I learned a lot about information searchability, findability, and the role of serendipity in the process. This happened during teaching reference, acquisition, bibliographic instruction, and user education (or information literacy). Questions and discussions in the class taught me to use the lens of diversity and accessibility with a keen eye on metainformation. My conceptual clarity about data (tangible and intangible), ideas (intrinsic and extrinsic), and knowledge work (infostructure and infrastructure) are because of their patience and perseverance and my sustenance.

State of the IDEA (Inclusion, Diversity, Equity, and Access)

Nonprofit organizations preserve the history and cultural traditions of a people by operating museums and libraries. They are the institutions in which people first learn how to practice civic values and exercise democratic skills (Jeremy Rifkin's The Age of Access, p. 245).

Civic Engagement is "the interactions of citizens with their society and their government." (Adler & Goggin, 2005). LAM's as a living organism informally facilitates such awareness. It is about roles played as facilitators in life-long learning, as well as civic educator, conversation starter, community bridge (Kranich, 2012). Social justice is defined as "creating opportunities for all … Social justice means equal rights and equitable opportunities for all" (San Diego Foundation, n.d., p. 1). The decision-makers at LAM are making all efforts to ensure that place, space, and virtual connectivity are directly and indirectly contributing towards engaging the community.

The questions that matter in understanding the current scenario are many, an answer to these is very difficult to find, include:

- How much are libraries, archives, and museums inclusive and engaging?
- How often do LAM's resources and strengths (for example, collections, spaces, and people) reflect civic and social needs and demands? Such needs may be about activism to bridge cultural differences. Are such practices evaluated and results disseminated?
- Are LAM's improving in accessibility and inclusivity (via digital literacy)?
- In troublesome times, such as COVID-19, do the virtual tools promote empathy for the most marginalized?
- Is the system's functionality well engaged with metadata (not just tagged, but also enables engagement)?
- How responsive, equitable, and inclusive in structure and design is the Web flow (i.e.., full compliance with Accessibility standards, and conform to Level AA standards as per WCAG 2.0)?

About this Book

Answers to the above questions are discussed in the book. The purpose is to critically review the current status of civic engagement (CE) and social justice (SJ) in the context of the LAM sector. This is the first book engaged by LAM professionals and community specialists.

This book also brings collective wisdom of LAM and community specialists in 22 chapters, the results of two global surveys (i.e., strategy during COVID-19 and digital readiness in a post-pandemic era) in Appendix One. Hence the book and its Appendix Two with a list of resources are essential for planners, managers, and developers. The surveys captured the moments, and the book has many instances of such memories. And such a need is well articulated by Kosciejew: "Remembering the coronavirus pandemic represents an obligation to the present and the future. Illuminating the intersections between remembrance, documentary heritage, memory institutions, and COVID-19" (Kosciejew, 2021, p. 1)

The book aims to present a single source on the current status of inclusion and engagement via LAM. The focus is on social justice and civic engagement via initiatives in literacy, outreach, activism, and collaboration. Furthermore, it is inclusive of content for both sides of the communities of practice, viz., LAM, and community-based organizations, respectively. In weaving the book's four sections, and 22 Chapters, many topics are inviting the attention of thought leaders. Moreover, with case studies and lessons learned there is valuable content for professionals, faculty, and researchers, to be engaged with.

In the context of LAM, the domains of IDEA and their impact on organizational competitiveness are now better understood. Which areas and activities have met the standards and comply is a topic that is requiring a full scope of study and research? Researchers in the IDEA area studies will find this book has many starting points for detailed analysis (The Association of Arts Administration Educators, n.d.).

Literacy is one major service the LAM's sector provides, and the outcome needs measurement. Very few studies of the LAM's outcome are available. (Brown, 2007; Canadian Museums Association. 2019).

Table 1. Chapter-wise: diversity map of book chapters' focus

Chapter	The focus of Chapter: CE / SJ	Principle Authors' Affiliation (LAM, or CBO)	Principle Author by Continent	Theme / Context	Title KW = Smart cities or Smart Libraries
1.	CE	Archive	Asia	Conservation	
2.	SJ & CE	LAM	N. America	Reference Tools	
3.	SJ	LAM	N. America	Research	
4.	SJ & CE	CBO	Europe	Media	
5.	CE	LAM	Asia	Outreach	
6.	CE	LAM	Asia	Outreach	
7.	SJ & CE	LAM	Asia	Tribes	
8.	SJ	LAM	Asia	HR	
9.	SJ	LAM	Europe	Training	
10.	SJ	LAM	Asia	Training	
11.	CE	CBO	N. America	Outreach	
12.	CE	LAM	Africa	Collab.	
13.	CE	LAM	Asia	Digitalization	
14.	SJ & CE	LAM	Asia	Digital Tools	
15.	SJ	LAM	Australia	Underserved	Ö
16.	CE	LAM	N. America	SJ Laws	
17.	SJ	LAM	Africa	Digitalization	Ö
18.	SJ	LAM	Europe	Social cohesion	Ö
19.	CE	LAM	Oceania	Digital inclusion	Ö
20.	CE	LAM	N. America	Digitalization	Ö
21.	SJ	LAM	Asia	Digitalization	Ö
22.	CE	LAM	Asia	Media	Ö
Total	SJ & CE combined (4 chapters); SJ (8); CE (10);	LAM (20 chapters); CBO (2)	Asia (10 chapters) N. America (6); Africa (2); Europe (2); Australia (1); Oceania (1)	Digitalization (4 chapters); Outreach (3); Media (2); Training (2); Miscellaneous (11)	Smart … (6 chapters)

OUTLINE OF THE BOOK

From this book you will learn that this good read is so accommodating that it will not only tell you, or show you, what your competitors already know, it will also involve you in outreach – where every citizen finds his/her information. The 28 scholarly contributors offer different perspectives, and each is focused on a particular function or role of LAM, social justice &/or community engagement. Outreach,

herein, is not only to bring back the lost users but rather also those who never use and those who are marginalized. To do so, you have to do what was never done and seek/choose/take a road least traveled.

Table 1 maps the diversity of the book by subject affinity (SJ &/Or CE), author affiliation by organizational type, country of location, thematic context, and Smart Libraries as keywords in the Title.

Summarily, the 22 chapters are mapped in Table 1 as follows.

- By subject affinity, 4 Chapters out of 22, present an integrated subject affinity (i.e., SJ & CE).
- Of the other 18, SJ is represented by 9 chapters, and 9 chapters concentrate on CEE.
- By location, the top most are with Asia: 10 Chapters; North America 6; Africa:2; Europe 2; Australia 1; and Oceania 1
- By themes most focused are 4 Chapters on Digitization; 3 on Outreach; 2 each in Fake news and Training, etc.
- By keyword in the title, Smart City &/or Smart Library is in 6 chapters.

The book is divided into four sections:

1. LAM in the Workspace: Weaving Equity, Diversity, Inclusion, and Digital Identity;
2. LAM in the Community: Weaving Inclusive Participation in Practice;
3. LAM in the Community: Weaving Inclusive Participation in Theory;
4. LAM in the Smart City: Weaving Digital Twins as Best of Both Worlds in Smart Cities.

Section 1, "LAM in the Workspace," is about capturing, connecting, and contemplating for social empathy – with due respect for the identity of each organization in the LAM sector. It has two chapters.

Chapter 1 discusses a significant back-end process. This process, called conservation, reflects one of the main works in the preservation of heritage – among the main back-end functions, such as identification, protection, dissemination, etc. This chapter is titled "An Isolated and Behind-the-Scenes Work Named Conservation: Developing Collaboration and Community Engagement of Conservation Practice in Indonesia" by Widiatmoko Adi Putranto, Indah Novita Sari, and Regina Dwi Shalsa Mayzana.

Chapter 2 has a front-end functionality and role, a role common at some level in the LAM sector. Here, the front-end includes information systems, Websites, Web applications, and tools for reference service. This chapter, "Are There Inclusive, Accessible Reference Tools for the Post-Pandemic Era? Exploring Literacy Resources to Teach Social Justice Through Community Engagement?" is by Mohamed Taher. "There can be no true democracy without reference service." (Ranganathan, 1961, p. 73; Gopinath, 1992, p. 53; Courtney, M. (2016, p. 21). Accordingly, democratic and engaging service begins with inclusive and accessible reference work and reference tools. This chapter critically explores the tools for inclusivity and engagement. It assesses these 'discovery' tools visually, physically, and digitally focused on information quality assurance. Presents a variety of literacy programs to teach SJ through CE, thereby effacing disciplinary boundaries (Veach, 2012, p. 3). Section 2, "LAM in the Community: Weaving Inclusive Participation in Practice," is about inclusion and engagement, and it has seven chapters.

Chapter 3 is authored by Amatul Momin, and it addresses "Social Justice as It Evolves in the LAM Sector: A Content Analysis and Avenues for Future Research." It critically explores the history of social justice and civic engagement in LAM. The findings of this study facilitate understanding the emerging themes and interdisciplinary areas in the field of social justice.

Chapter 4, "Helping Communities Confront Extremism: A Role for Librarians in Debunking the Claims of Extremists on Social Media," is by Roderic Vassie. This chapter proposes how public libraries can contribute to providing their communities with the information literacy and context to understand real examples to protect themselves against the false truth claims of extremist misinformation on social media. Whilst acknowledging the existence of other extremisms, the examples focus on the misrepresentation and misinterpretation of Islamic scriptures and classical scholarship. The chapter uses case studies of misinterpreted and misrepresented texts quoted by individuals convicted of terrorism offences, and explains how library professionals can gather the information necessary from bibliographic sources to expose the extremist purpose. By collaborating with other libraries, academics, and faith leaders (e.g., imams), it is possible for librarians - as trusted members of their communities to play a key role in helping 'inoculate' their users against the siren call of extremists by developing poster exhibitions, for example, and targeted information literacy skills training.

Chapter 5, "Salar Jung Museum Library in the Heritage City of Hyderabad: An Analytical Review of Outreach and Engagement," by Soma Ghosh, focuses on a case study of heritage city, viz., Hyderabad, in India. The library has been operational since December 1951 and has been involved in civic engagement with its services of sharing information via books, manuscripts, lithoprints, and photographs to all sections of the reading public. This study undertakes to understand the role of this library in understanding the history and heritage of Hyderabad, the city where it is located, Hyderabad being a heritage city, it is of great interest to citizens, scholars, and heritage enthusiasts. The Salar Jung Museum Library has enough resources to study and understand the history of the heritage city of Hyderabad in India's Telangana State, a part of the Deccan. It does so as part of its civic engagement role in Hyderabad by giving access and services to both the scholar and the general public.

Suchismita Majumdar's Chapter 6, titled "Community Engagement Through Extension and Outreach Activities: Scope of a College Library," presents a case of exemplary evidence of the accomplishments of a college library. It is focused on the extension and outreach activities of Sir Gurudas Mahavidyalaya, Kolkata, West Bengal, India. Innovation, collaboration, communication, creativity, and effective employment of ICT tools are the key to successful execution.

Chapter 7 is on "Digital Divide Among the Tribals of Kerala: A Comparative Study of Kannavam and Thavinjhal Village," by Ramya A. V. The role of libraries as community information centers in rural and tribal regions will help to reduce the digital divide. The study identifies capacity building of rural people to make use of ICTs as crucial towards resolving the problem.

Chapter 8, "Human Rights Literacy to Promote and Sustain Attitudes and Behaviours Supportive of Social Justice," by Chaminda Jayasundara, offers a comparative study of Human Rights Literacy (HRL). This chapter explores what HRL involves and how it establishes and develops improved rights of the citizens supportive to social justice in the society.

Chapter 9, titled "Digital Literacy Training: Opportunities and Challenges," and authored by Fatma Ince, provides an overview discussion on the new information age technologies that influence and shape the social and business life of individuals. At this point, it can be said that digitalization and the smart city process have two main objectives. The first of these goals is sustainability for more efficient use of city resources, and the second is to increase the quality of life to provide better service to city residents. In this way, information awareness is expected to increase in the digitalization process.

Section 3 is about "LAM in the Community: theory relating to facets such as representation, recognition, and rural readiness and discussed in seven chapters.

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Chapter 10 authored by Lasenta Adriyana, and Dwi Fitrina Cahyaningtyas, titled "The Importance of Rural Library Service based on Social Inclusion in Indonesia," is to show that librarians have a role in community libraries as a manifestation of the national movement for social inclusion in society to reduce the impact of the socio-economic crisis due to the COVID-19 pandemic. The method used is qualitative descriptive analysis. The result of this research is community libraries can change people's small habits into values that can change their lives, librarians to be taught how to sort waste and make money from waste, the goal is to reduce waste and help the community's economy. The existence of the library itself also helps the community, especially school-age children, in learning room facilities and wi-fi as a result of the COVID-19 pandemic which requires school children from home online.

Chapter 11 relates community group and civic engagement's importance for LAM. It is written by Abdulhamid Hathiyani, and the title of the chapter is "A Missed Opportunity for Community Engagement and Data Collection. Case Study of a Diaspora Organization in Toronto." This exploratory research is a case study of a Diaspora organization that discovers how information and learnings flow both within the organization as well as with mainstream institutions such as Libraries, Archives, and Museums. It highlights a missed opportunity for both the mainstream institutions as well as the smaller community-based organizations of engaging each other in sharing and gathering information and calls for more extensive research on the subject. The data collection is by a survey with open-ended and closed questions. This chapter has highlighted that while there is no formal communication or engagement of small organizations such as Kutchi Cultural Association (KCA) with mainstream establishments, these smaller diaspora organizations are active in community development and have the trust of their members. It identifies a missed opportunity of engaging them for development and the flow of information and on the other hand for the small organizations to reap more benefits if they reached out to the established institutions, build partnerships, and got their requests known to them. The chapter calls for more research into the topic for better identification of community engagement opportunities.

Chapter 12 is focused on "Designing an Education Curriculum Through Collaboration With Institutions of Higher Learning, Libraries, Archives, and Museums: Case of Kruger National Park," authored by Nkholedzeni Sidney Netshakhuma. It assesses the role of institutions of higher learning in designing education curriculum in collaboration with the library, museum, and archives (LAM's) of the Stevenson Hamilton Knowledge Resource (SHKR) center based at the Kruger National Park. This research is based on a qualitative research method. It is a case study. LAMs may serve as lifelong learning in South Africa. Designing educational materials requires the collaboration of the Ministry of Basic and Higher Education, Training, Science, and Technology, and LAMs. It appears that most records preserved at SKHR are records with confidential and secrecy information. Most of the collections preserved are still under embargo.

Chapter 13 is about "Significance of Digitization of the Cultural Heritage: In the Context of Museums, Archives, and Libraries," and is authored by Abduraheem K., and Jahangeer Sheri. Digitization is imperative for the modernization and application of all types of technological advancements in various institutions. There are many tools and techniques described for the digital preservation and dissemination of information and the custodians of different institutions may get benefited from being familiarised with them.

Chapter 14 is authored by Shipra Awasthi and Shiva Kanaujia Sukula, and titled "Digital Literacy Niche in Academia: Endeavors and Digital Solutions for Young Smart Citizens." This chapter provides various approaches to understand the issues for effective citizen engagement with an overview of the practices adopted by academic institutions and libraries to enrich the young generation. The chapter ad-

opted the mixed-method approach including a review of literature and case studies to provide the current status of practices. Technology should be seen as a catalyst to increase opportunities for engagement as technical experts to unleash creative potential and hidden learning potential.

Chapter 15 is on "How LAM Sector Can Improve Quality of Life for Underserved Groups via a Whole Person Approach" and is by Muhammad Asim Qayyum, and Mohamed Taher. This chapter focuses on the special services that LAM sector can offer to facilitate the way towards achieving the goal of enhanced civic engagement, as serving the unserved groups of society is an urgent priority for the sector. Discussed will be several creative strategies that can be implemented in the current services to make sure the special needs of communities that a sector serves are considered and met. This is a conceptual study positioning its premises and recommendations after carrying out a comprehensive review of the literature. Information professionals need to be progressive to serve the unserved users in their communities by understanding and serving their survival information needs. As a first step, the need is to find out what kinds and how much information is typically required or accessed by underserved community members to compare with the existing resources and services provided by the information agency. A next step can potentially be to discover the citizens ' choice/priority in finding information and to find out where a library sits in their priority list of information providers. These are urgent priority steps for the LAM sector to fully engage with the communities it serves.

Chapter 16, titled "Extending Shiyali Ramamrita Ranganathan in the 21st Century: Social Justice Laws of Librarianship," and authored by Bharat Mehra, traces the actualities and possibilities of representing social justice and social equity concerns in LIS via extending Ranganathan's five laws of librarianship within today's contemporary neoliberal and geopolitical realities. Blinders in librarianship are identified in their resistance to intentional, systematic, action-oriented, community-engaged, and impact-driven strategies of social justice and real change owing to its White-IST (white + elitist) roots. These are speculated about the profession's undervaluing of Ranganathan's contributions because of his South Asian origins as a result of the pedestalizing of its Anglo/Eurocentric components within the legacies of a colonized and imperialistic world order. A manifesto of social justice laws of librarianship is proposed to address past and recent lapses in LIS.

Section 4 is about "LAM in the Smart City" weaving digital twins in a futuristic perspective (i.e., born-digital and the transformed digital resources), related opportunities, challenges, and solutions for smart cities. It has six chapters.

Chapter 17 is entitled "Building Civic Engagement in Smart Cities: Role of Smart Libraries" and authored by Adebowale Adetayo. The chapter focuses on the role of smart libraries in building civic engagement in smart cities. Literature was thoroughly reviewed from credible sources such as ISI web of knowledge and Scopus. The findings of the study revealed that smart libraries could be instrumental in engaging the citizens through reference services. Librarians can achieve this through information literacy programmes and conducting community references. This implies that smart libraries are essential in building civic engagement. Therefore, every effort should be made by smart city governance to ensure that smart libraries are part of their civic engagement plans.

Chapter 18 is on "Libraries, Digitized Cultural Heritage, and Social Cohesion of Smart Cities: Model-Like LIS-Educational Implementations in Hungary" by János Fodor and Péter Kiszl. Digitized cultural heritage is a key component of the complex service system of future cities, which is crucial for social cohesion and acceptance. For digitized collections to be successfully integrated into the daily lives of smart city residents, we need to learn from examples that are working today: the success of start-ups, social media phenomena, and lessons learned from the design of small digital collections. By method or

approach: First, participant and non-participant observation: university education provides an opportunity to develop service models and explore the specificities of present social media use with the input of the next generation. And, second, case studies: our digitization projects are implemented in a way that allows us to present different types of LAM services integrable into the complex service systems of the future. The models we describe cover different collections in the LAM sector, but recognizing the opportunities requires human associations and a fresh and topical perspective. Creators and developers of LAM modules for the service system of future smart cities should cooperate with college-aged people, and educational institutions training future professionals in the field of library and information science and other related academic fields.

Chapter 19 provides a detailed analysis on "Role of Libraries, Archives, and Museums for Metaliteracy in the Smart Cities: Implications, Challenges, and Opportunities" authored by Saima Qutab, Syed Adnan Adil, Dr. Lesley Gardner, and Farasat Shafi Ullah. This research aimed to provide an overview of the range of different literacies required for the survival in the smart cities and what roles the LAM sector can play in this regard. We provide a set of recommendations for the LAM sector for the metaliteracy competence development. A systematic review of literature based on the bibliometric and thematic analysis. We identified a range of metaliteracies that are required in the age of digital transformation, the roles of LAM, and gaps in the current practices. Further, we proposed a framework of action for the LAM sector, containing four 'topical domains': standards, technology, literacies, and partnerships. This study hopes to initiate a discussion among the LAM professionals to identify the requirements of smart communities and smart cities to revisit their roles and responsibilities.

Chapter 20 is authored by Sarah Goodyear and deals with "Smart City Technology and Civic Engagement in Ontario, Canada: Case Examples From Toronto and Barrie." The scope of this chapter covers the proliferation of technology and its use in everyday life, and the impact this has on citizens and their community engagement. The chapter focuses on the role libraries in particular play in mitigating gaps created by unequal access to such technologies, especially in emerging smart cities. Local case studies are used to show how public libraries are actively working to close these gaps and serve as trusted institutions amidst the various issues presented by the trend toward smart cities. This chapter uses case studies to provide examples programming and services offered by local public libraries, primarily in Ontario, Canada. From the case studies, this chapter concludes that LAMs, especially public libraries, play a vital role in connecting communities and creating equal opportunities for citizens to fully engage with modern conveniences in smart cities

Chapter 21 is focused on the public library system in India. It is authored by Mariam Bhanu, and V. K. Dhanyasree. The title of the chapter is "Fostering Civic Engagement in Smart Cities: An Opportunity for Public Libraries in India." The method used for the study is more observational. India lacks a proper library system. Lack of financial support and technical guidance has resulted in the deteriorating state of public libraries. However, aspiring younger people have started many initiatives with the help of NGOs to set up community libraries within the heart of cities like Delhi and Bangalore. The focal point of such libraries is to uplift underprivileged children and to give them a better future.

Chapter 22 deals with "Countering Fake News: A Study of People's Attitudes and Strategies to Offset Disinformation in Smart Cities in India" and is authored by P.M. Naushad Ali and Daud Khan. This chapter unveils people's attitudes towards fake news and tactics to counter disinformation being propagated in the smart cities of India. In this Chapter, a national survey through an online questionnaire was conducted among the general public residing in the smart cities in India. A total of 200 respondents were recruited in the study through 'snowball' sampling method. The results of the study disclosed that

the Indian public has a negative attitude towards fake news and believed that fake news poses a threat and also harms democracy. The top three agents creating and disseminating fake news among the general public in India are politicians, political parties, and journalists. In this regard, libraries can play a central role in the fight against fake news by increasing the general public's awareness regarding fake news and initiating training programs to promote sustainable information seeking/evaluating practices.

SUM UP

The recommendations in each chapter of the book will provide ideas for LAM's Collective Wisdom to nurture human-centered approach for becoming an active, engaged, and inclusive member of Just Smart City. And to provide thruput for Enhancement of Social Cohesion for community partners.

Findings or implications (e.g., solutions and recommendations) relate to theory, practice, education, or research. Information professionals need to be progressive to serve the unserved users in their communities by understanding and serving their survival information needs. As a first step, the need is to find out what kinds and how much information is typically required or accessed by underserved community members to compare with the existing resources and services provided by the information agency. The next step can potentially be to discover the citizen's choice/priority in finding information and to find out where a library sits in their priority list of information providers. These are urgent priority steps for the LAM sector to fully engage with the communities it serves.

In short, the book engages you, the reader, about the current diversity, inclusivity, and accessibility in LAM's engagement and outreach - to compassionately serve Black, Indigenous, People of Color (BIPOC) in their current socio-cultural context. The scholarly content in this book will add value, not as a definitive contribution, rather that which reflects the evolving trends.

And, if you are looking for any of the following, for example, this book has it:

- To try a new service or program in LAM to engage youth or to be inclusive of the marginalized
- Wish your Archive or Museum or library should have an inclusive or engaging role
- Interest in best practices or lessons learned in collaborating
- Want to promote outreach simultaneously engage a community-based organization
- To know how engaged were LAM during COVID-19
- Level of digital preparedness for the New Normal

TARGET AUDIENCE

- Community organizations, such as educational bodies, non-profit, social welfare, e-Government departments
- Educational leaders and faculty in iSchools, Library & Info Science, Information Studies, Archival Studies, Archival and Records Management Studies, Museology and Museum Studies,
- Information management leaders and professionals in public and private: Knowledge Managers, Librarians, Archivists, Record Managers, Conservators and Curators
- Social and community specialists in smart city design
- Front line workers in all public and private sectors

- Policymakers engaged in training and HR in diversity
- Researchers, and developers of digital tools

Agenda for Study, Research, Teaching, and Training

The following questions have been answered in the book. But these questions need more research and study both intensive and extensive to get a full picture with due respect to their identities, and "Different research perspectives" (Rasmussen & Hjorland, 2021, section, 4.7.1).

- Do Libraries, Archives, and Museums collaborate in providing CE or SJ in the literacy programs?
- Do the two groups (LAM & Community organizations) have any relationship in providing literacy? If yes, what works well?
- Academia ignores digital literacy. Then who is preparing the professionals for the smart cities
- "Inclusion, diversity, equity, and accessibility (IDEA): From organizational responsibility to leadership competency." how much is this IDEA in practice?
- Most LAM's graduate programs do not include literacy relating to CE, SJ. Then, who is doing it and who is partnering in it?
- LAM's faith in its social and civic responsibility was well discussed in theory, why is it absent in practice?
- In the convergence of LAM & graduate education, what are the challenges and opportunities in smart cities?
- Do LAM's have the power to collaborate with new channels of communications in Smart Cities?Five Laws of Inclusion, access, and growth in holistic manner, in the words of Helgesen:

Five Laws of Inclusion, access, and growth in holistic manner, in the words of Helgesen:

- "Information should flow to whosoever can use it
- No one should need to be authorized to use the tools that get things done
- No system or program is ever completed – you can always make it better
- People should always work incrementally on improvements
- What matters is improving programs, not who owns them -- "Autonomy, freedom for information and self-expression." (2005, p. 280).

LAM can adopt Dr. S R Ranganathan's Five Laws, synchronizing with the above five percepts (Taher, 2021). These laws are guides to develop the notion of usability, use, and user need in changing times.

These percepts echo the values and principles that define the Web of inclusion, in which information flows freely across levels, teams make their own decisions, work on specific projects evolves in response to needs as they arise, and tasks are more important than position. (Helgesen, 2005, p. 280).

CONCLUSION

This handbook provides practical ideas, resources, and templates in developing digital literacy for social inclusion, civil engagement, and accessibility for everyone. The agenda for in-depth research is very useful for national LAM organizations to further intensify in collaboration with other community stakeholders' plans for 2030 (Kear & Garcia-Febo, 2020). Such a time-bound plan will synchronize very well with The UN's Sustainable Development Goals (SDGs), Agenda for 2030 (UNESCAP, 2018).

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<p align="center">******</p>

We also contend that archives, libraries, and museums will continue to fill a broad social need to decrease disparities between "information haves" and "information have-nots" especially as skills in acquiring, evaluating, manipulating, and generating information become more fundamental to individual and social well-being. (Hedstrom, & King, 2003).

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Introduction

ABOUT THE AREA OF STUDY

Weaving the role played by libraries, archives and museums are conceptualized here in four areas. First, in institutional motivation, second, in barriers within and without, third, in extending disciplinary boundaries in theory and practice, and fourth, in Smart and Just ways to be inclusive and engaging. These are in the context of four sections in the book, viz., internal innovations and performance management, lessons learned in external collaboration, capability model frameworks that work, and best practice strategies for a key player in Smart Cities. An emerging virtual opportunity for LAM is evident. But do the challenges of infodemic, has strengthened the quality of tools as finding aids (or paths)?

The idea that "a context-sensitive literature discovery is rich and viable," leads in the same breath to ask: 'where in the world is this research?' (Olsen, 2021). A simple answer is to wait for the next edition of 'Web Futures: Inclusive, Intelligent, Sustainable The 2020 Manifesto for Web Science' (Berendt, et al. 2021).

The preamble for an understanding of this are of study can be visualized in the Four Mantras: "Posterity is now; failure is an option, and repatriation is a foundation for research... As museums embrace the turn to social justice and community engagement, I believe that they should be in part guided by peoples whose items they house in their collections." (Shannon, 2019, p. 1) This book proceeds with these mantras to get a full picture of LAM's role.

Herein the aim is to fill the gap with a sufficiently comprehensive critical overview of the role played by LAM in achieving SJ and CE. Based on this overview, the readers can choose an appropriate aspect to pursue the subject further. The spirit of this role played, in the context of the library is well stated by Jaeger et al., (2015) "As communities face increasing challenges and opportunities in education, workforce development, health and wellness, environment, and other key areas, libraries have begun to play growing roles in meeting these challenges." (p. X).

While social and cultural advocacy groups do offer, such services, the question is where do LAM appear in this process? One answer is information service providers, such as LAM, collect essential information to promote such programs. And, the community based organizations (CBO) can be benefitted by collaborating with LAM. Such a collaboration is a two-way traffic, and well articulated by Leming et al., (2003). "With increased access to more advanced technologies, schools now can expand their learning environments to include databases, information-retrieval systems, and other library and museum resources throughout the world." (p. 164)

Libraries, Archives, and Museums (LAM's) serve the community as any other community stakeholder. The overall role of LAM's is to facilitate user's intellectual growth. The path towards this facilitation is with major steps, such as pursue advocacy for social justice, literacy for civic engagement, outreach for intercultural competence, as well as towards environmental stewardship.

Outreach is two dimensional. First, is outreach to bring back the existing user (or promoting reading habits among book lovers around libraries).

Gandhi said "In this world good books make up for the absence of good companions, so that all Indians, if they want to live happily in jail, should accustom themselves to reading good books." (Desai, 2010).

Second dimension is to reach the citizen, non-user, where he lived.

"To carry knowledge to the doors of those that lack it and to educate all to perceive the right! Even to give away the whole earth cannot equal that form of service." Manu Smriti (Taher, 2001, p. 32)

LAM as used in this book, accepting a distinct identity of each part, was probably for the first time defined as:

Throughout the paper we refer to the broad world of library, archive, and museum collections by the abbreviation LAM. The use of this acronym as a plural proper noun is intended to highlight the commonality of these remarkably separated worlds of work, even as we trace the pathways of their separate evolutionary development. Ultimately, we argue that the differences among the separate worlds of libraries, archives and museums should be subordinated to the emerging need to strengthen what we call the epistemic infrastructure of the knowledge-based economy through a new view of collecting and collections. (Hedstrom & King, 2003, p. 1)

And, LAM's interest in Civic Engagement (CE) and Social Justice (SJ), is far more recent. Social inclusion and civic participation, as a social role of Libraries, Archives, and Museums (LAM's), have been dealt with individually - e.g., social justice in public libraries by Pateman (2016), Libraries, Human Rights, and Social Justice: Enabling Access and Promoting Inclusion (Jaeger et al., 2015). and Social Justice and Library work: A guide to Theory and Practice by Bales (2017). In short, a resource for community activists, or LAM professionals, as beginners themselves, will need to refresh their knowledge, skills, competencies, etc. for training the diverse learners, and to be abreast with best practices and tested resources.

A search in many sources, including catalogs, bibliographies, citations, etc., revealed that there is not a single handbook that can provide a resource to any LAM practitioner or student interested in CE or SJ.

LAM During Covid-19 And Readiness for a New Normal, Global Surveys (details in Appendix 1)

Information overload or not, researched subjects have cared or not, nevertheless, this is the point where engagement is getting full attention. "Research subjects rarely have the chance to reflect on their experiences of participating in research in the worlds where researchers discuss, debate, and reflect. The voices and reflections of researchers, on the other hand, are common." (Howard & Irani, 2019, p. 1-15).

The research about the information professional's opinions and impressions during COVID-19 in terms of digital literacy and digital divide is essential for memory institutions.

- We collaborate, but do we know that our own information professionals are not aware of many LAM's advances.
  35% of respondents, most from LAM sector are familiar about, "Children's Hunger Alliance, the COVID response with Public Libraries, OHIO;" whereas, only 17.7% were familiar with "OCLC, IMLS, and Battelle COVID-19 Research Partnership". Details are in the Appendix 1.
- Our local activities are more popular, yet in a flat globalized word?

30% of respondents, most from LAM sector are familiar with "Share your COVID-19 Remote Learning Stories!"; whereas only 20.3% were familiar with "COVID-19 Resources & Information for the Museum Field." American Alliance of Museums). Details are in the Appendix 1.

As a single source on the current status of inclusion and engagement via LAM, this book is directly about diversity, inclusion, and access for all. Precisely it is on social justice and civic engagement via initiatives in literacy, outreach, activism, and collaboration.

It explores for the first time the role played by LAM to achieve social justice (SJ) and civic engagement (CE). It brings forth ideas for leadership to plan in the emerging New Normal. This book also fills a missing facet in the LAM's literature: creating and sustaining literacy. In doing so, it is inclusive, as well as reflective of community needs – that which is so passionately significant in moving towards Smart Just Cities.

This is a first in the first exploration to know LAM's performance in Social Justice & Civic Engagement. The bottom-line is how SJ & CE are located in LAM's organizational setup, what it is, how it works, how it feels to do so in a living organism.

A simple explanation of SJ & CE is in facilitating health and wellness literacy during COVID-19 troublesome times. So also, it can be visualized in creating resources for awareness about 'need accommodation for diversity' (civil and social literacy, financial literacy, etc.), in consultation with the government rules and regulations (Hines-Martin, et al., Eds.,2020).

Integration of Social Justice and Civic Engagement

The frame of reference of social inclusion and cultural/civil engagement is well described by David Lankes (2011).

The obligation of librarians to know their values and act on them does not stop at organizational boundaries… Look at our means of facilitation again, but this time considers the cultural space surrounding the activity. To provide access means we must honor the norms of conversations in terms of intellectual property and indeed propriety. For example, many cultures have sacred rights, songs, and documents that are not to be shared beyond a specific set of cultural boundaries. (p. 124)

…civic engagement is a means by which historians can challenge exclusive pasts and promote a more just and inclusive future… and craft a strong foundation from which average citizens can become stronger advocates and agitators for social justice causes. (Meringolo, 2019).

The move from civic engagement to social justice and activism has become central in public history debates. (Cauvin, 2016).

We find that there are statistically significant correlations between the conceptions of social justice held by students, the forms of civic engagement they understand to be social justice actions, and the types of civic engagement in which they participate. (Richards Schuster, Espitia, & Rodems, 2019).

Why another book on social justice? Yet another on civic engagement? The answer is that unlike what you have seen, this book presents a combined look. That is, it welcomes you to read the chapters about social justice using the lens of civic engagement and vice versa. It is based on the integration of SJ & CE as done in academia (Closson & Nelson, 2009; Sanders, 2010; Lewis-Harris, 2010).

A course entitled Critical Cultural Information Studies! -- at the University of South Carolina – deals with "issues of diversity, social justice, race, gender and sexuality are represented in the information professions and will study how these social imperatives affect, and are affected by, information technologies." (Critical Conversations In LIS, n.d., p.1; Vaidhyanathan, 2006, p. 292).

Such integration brings the two worlds together. This integrated approach is well illustrated in two chapters, namely, Chapter 2, on the theme, Literacy Resources for Teaching Social Justice Through Civic Engagement. With this approach, the book provides bridges to view the subject holistically. Hopefully, this approach will inspire LAM information professionals.

A project is in progress on the meeting of CE & SJ, namely, "Visioning an inclusive library: Engaging diverse voices in Guelph (Ontario, Canada)." (Zivot 2020). Similar efforts about inclusion and engagement are in Museums (Tzortzi, 2017), and Archives (Engseth, 2018). Improving Access to Civil Legal Justice is a good resource for public libraries by WebJunction.org. It also has a checklist for libraries to be inclusive and accommodating diversity. Hopefully, extensive research by LAM will disprove the results of a study: Surprisingly, little convincing evidence was found concerning the relationship between museums, libraries, and archives and educational outcomes (Taylor, 2015).

Information Literacy in a Post-Covid-19

Thinking of information literacy, as an example, as an activity that can hopefully bring a balance between the theory, practice, and research in LAM. More effort in the literacy programs is required because there is a long-standing gap in the literature. One of the earliest attempts by a College Library subject guide combines SJ and CE in 2001 at Ray W. Howard Library (2021). Not many have emulated this. Further, ACRL's "Framework for information literacy" mentions it would recognize the growing community of librarians committed to social justice and civic engagement (Saunders, 2017, p. 15).

Information literacy in the troublesome times of pandemic (esp., disinformation), is receiving some attention in the LAM sector (Austin, Borah, & Domgaard, 2021; *Bennion, & Scourfield 2020;* Mohamed, 2021; Zbuchea, Romanelli & Bira, 2021).

Smart City

Where does smart city appear in the ongoing COVID-19 and roles of LAM? See the following: "A Functional and Inclusive City's Response to the COVID-19 Pandemic" Smartcitieslibrary.com (n.d.). (See also Anheier, Merkel, & Winkler, 2021)

LAM & COMMUNITY STAKEHOLDERS: BETTER TOGETHER

Literature Survey. "… (libraries) have also developed proactive responses to new technology. Efforts to reinvent themselves as 'hubs', 'makerspaces' and co-located community centres offering enriched spaces for social gathering, targeted learning, and new forms of creative production, including entrepreneurial

activity and innovation, are strategies for maintaining and extending the traditional remit of the public library." But the bottom line that emerges, after the considerable experience is the crux of the problem that seems to be a marriage of convenience. And, a study concludes: "However, these transformations are not adequately recognised within the structures through which libraries are evaluated and funded, thus making them vulnerable to future governmental agendas." (Leorke et al., 2018, p. 37).

A survey of the current developmental programs/resources was conducted. A major player in the community (e.g., organizations and inter-organizational collaborators) LAMs were almost absent. (See Table 1).

The data displayed in Table 1 are collected by searching research and published sources identified via Google Scholar and other library databases. Table 1 has seven projects. Of all the three LAM domains, engaged, and that is in the library. The period or date range is the last three years. There are two factors, viz., who is the stakeholder, and who are the collaborators. Although SDGs are to be inclusive of all community organizations, LAMs presence, or collaboration is hardly identified in any of these tasks.

The "Objectives of the 2030 Agenda – that no one should be left behind and that an integrated approach to delivery be followed." The UN's Sustainable Development Goals (SDGs), aimed to end poverty, protect the planet and ensure prosperity for all. Identifying a missing link in Smartification here is a good reflection "…the quest to 'upgrade' and 'modernize' is not adequately aligned with the role of key historic-cultural institutions such as museums and heritage sites. (Gandhi, et al., 2021).

Table 1. LAM: The missing collaborators in the UN's 2030 agenda

First Author cited by	Who is engaged	Who is collaborating: Library	Who is collaborating: Archive	Who is collaborating: Museum	Who is collaborating: Community	Total Team #
Boucher (2020) / / cited by none	Stakeholders	1 city has 1 library	None	None	9 cities	10 cites
Bhamra (2020) / cited by none	Non-State Actors	None	None	None	Projects	7
UNESCAP (2018) / cited by none	Stakeholders	None	None	None	**	?
Nhamo, (2021) ed., / cited by none	Academics	1 Univ Librarian, ed.,	None	None	12 academics (from other fields)	13
Georgeson (2018)/ cited by 30 non-LAM sources	multi-stakeholder partnerships	None	None	None	science, technology, and innovation	?
Muff (2018) / cited by 12 non-LAM sources	Five Superpowers	None	None	None	*	?
Ihimaera-Smiler (2020) / / cited by none.	Library research brief.	None	None	None	New Zealand's work towards the SDGs	"

One perspective is who should take the initiative. Is it to come from the community, i.e., a community group or organization invites LAM to join the development (Schellnack-kelly, 2019), or is it LAMs who must initiate (Reid & Howard, 2016)? The LAM side story of collaboration, success, or challenges is also worth consideration. (Kear, & Garcia-Febo, 2020; Missingham, 2021; Hashmi, 2019; Ejechi, 2018; Dean, 2015; Muff, 2018; Mainka, et al. 2016). The question must be dealt with as a top priority because collaboration is one of the main components of smart cities.

This Book Helps Fill in An Essential Gap in The Literature

One question worth asking: is there a single source that captures all roles played by LAM in achieving CE and SJ? The answer is there is no such source (Table 2). Table 2 displays sixteen publications (published between 2002 and 2020), 3 books, 2 dissertations, 1 report, and 10 articles/papers. Among the main focus, four deal with LAM education, four on collaboration, two about convergence, etc. Overall, there is no single publication that is all-inclusive – in other words, none of the 16 titles have the keywords that match with the book in hand.

Table 2 has one publication in SJ, 2 in CE, 2 in Diversity, 3 in Literacy, none in Outreach also none in Smart Cities. 9 of these have appeared in the last five years. Overall, 80% of these publications don't have any inclusive or engaging publication. The value of Table 2: All the publications don't have much in common. By implication, a large sample is a must. Anyways, there is a need for both broader and narrower studies to find common areas.

Obvious from Table 2 is the point that there is no single source on the subject of the book. The role of LAM in achieving and has been achieved so far in SJ & CE are in publications that are all scattered. This subject has been dealt with individually (e.g., social justice in libraries by John Pateman; Fostering Empathy Through Museums by Elif M. Gokcigdem; inclusive Archival Studies by The InterPARES Project, etc.). An extensive survey of public libraries study presents six types of social innovations, viz., lifelong learning, Health, civic engagement, economic development, emergency responses, and diversity and inclusion. (Winberry, & Potnis, 2021).

What is the gist of the LAM's roles (while maintaining each type of LAM's identity)? Here is one quote that presents the gist, in the context of diversity, inclusion, and engagement:

- The library promotes integration and social cohesion by being a meeting place across ethnic and cultural belongings.
- Archives promote transparency, making it possible for media and citizens to obtain information about the activities of public bodies and institutions.
- The museum's exhibitions and mediation promote democracy by giving the users access to knowledge and information they need to be active citizens." (Audunson, 2020).

Table 3 has Keywords-in-Context relating to SJ in 10 chapters, CE in 13 chapters, Diversity in 8 chapters, Literacy in 8, chapters Outreach in 3 chapters, and Smart Cities in 9 chapters. Noticeably, chapters 2, 4, 7, and 14 combine CE & SJ.

Each chapter contributes to the focus of the book. The authors are a mix of academics, practitioners, and researchers. Each author's contributions are distinct and offer different insights into the processes, the challenges, etc.

Table 2. A gap about LAMs diversity, inclusiveness in publication (sample survey)

LAM In Title		Title Keyword in Context						
	Format	Inclusive (SJ)	Engaging (CE)	Diversity	Literacy	Outreach	Smart cities	Main focus
1. Arias-Coello, 2017	Article	No	No	No	Yes	No	No	LAM Education
2. Trant, 2009	Article	No	No	No	No	No	No	Convergence
3. Innocent, N. 2009	Article	No	No	No	Yes	No	No	Lifelong learning
4. Yarrow e t., 2008	Article	No	No	No	No	No	No	Collaboration
5. Audunson, et al 2020	Book	No	Yes	No	No	No	No	Democratic space
6. Howard, 2015	Ph.D. thesis	No	Yes	No	No	No	No	LAM Education
7. Becerra-Licha, 2017	Book	No	No	No	No	No	No	Collaboration
8. Hider, & Kennan 2020	Article	No	No	No	No	No	No	Convergence
9. Choi, 2020	Article	No	No	No	No	No	No	LAM Education
10. Clough, 2013	Book	No	No	No	No	No	No	Collaboration
11. Mabe, 2017	Dissertation	No	No	No	No	No	No	Collaboration
12. Andreoli, 2018	Article	Yes	No	No	Yes	No	No	search functionality.
13. Riley-Huff, 2016	Article	No	No	No	No	No	No	crowdfunding
14. Roy, 2013	Conference presentation	No	No	Yes	No	No	No	LAM Education
15. WAVELL. 2002	Report	No	No	Yes	No	No	No	Impact on personal development
16. Stauffer 2021	Book	No	No	No	No	No	No	Historicity
17. Hedstrom & King 2003	Book	No	No	No	No	No	No	Historicity

Table 4 visualizes the content of 22 chapters. 11 chapters deal with LAM from a broad perspective. 5 Chapters deal with by or from the community-based organization's context. In such chapter's the respective author(s) draw inferences to connect with LAM collectively or individually.

AREAS FOR FURTHER RESEARCH

- LAM are for use.
  - Hypothesis: Missing is the IDEA of ease of access, especially the have-nots. (Campbell & Smith, 2017; Oakley & Naylor, 2005)
- LAM empower the citizen.
  - Hypothesis: Missing is the IDEA of engaging, and empowering for loyalty, and support (Subramaniam & Jaeger, 2010).
- LAM are in the life of the citizen:
  - Hypothesis: a. Missing is the of IDEA of reaching the non-user where they live. b. Community-led LAM is an example of reciprocity, but lacks evidence-based studies (Liberation War Museum established by community workers. 'Dhaka – The Magic City,' 2009, p. 1); Muslim man's library with 3,000 copies of Bhagavad Gita torched by miscreants in Karnataka. (2021); Participatory Potential of Civic Libraries: Two Estonian Cases (Põldaas, 2021). Empower the citizen where s/he lives (Fernandez-Ardevol et al., 2018)

Table 3. Thematic structure of the book

Chap.	Action	Title Keyword in Context Yes (relevant) / No (not relevant)						Main focus	Scope: Teaching (T); Research (R); Practice (P)
.		Inclusive (SJ)	Engaging (CE)	Diversity	Literacy	Outreach	Smart cities		
1.	Direct	No	CE	No	No	No	No	Preservation	P
2	Indirect	**SJ**	**CE**	Yes	Yes	No	Yes	Curriculum	P
3.	Indirect	SJ	No	Yes	No	No	No	Convergence	T
4.	Direct	**SJ**	**CE**	Yes	Yes	No	No	Media	P
5.	Indirect	No	CE	Yes	No	Yes	No	Collaboration	R
6.	Direct	No	CE	No	No	Yes	No	Democratic space	P
7.	Indirect	**SJ**	**CE**	No	Yes	No	No	Digital Divide	R
8.	Direct	SJ	No	No	Yes	No	No	Human Rights	P
9.	Direct	SJ	No	Yes	Yes	No	No	Training	R
10.	Indirect	SJ	No	No	No	No	No	Rural area	R
11.	Direct	No	CE	No	Yes	No	No	Diaspora	T
12.	Direct	No	CE	No	No	No	No	Curriculum	**P**
13.	Indirect	No	No	No	No	No	Yes	Technology	R
14.	Direct	SJ	CE	Yes	Yes	Yes	No	Whole Person	R
15.	Indirect	No	CE	No	No	No	Yes	Technology	R
16.	Indirect	No	CE	No	No	No	Yes	Citizen participation	T
17.	Direct	SJ	No	No	No	No	Yes	Digitization	T
18.	Direct	No	No	No	Yes	No	Yes	Technology	P
19.	Indirect	No	CE	No	No	No	Yes	Technology	R
20.	indirect	No	No	No	No	No	Yes	Technology	R
21.	Indirect	SJ	No	Yes	No	No	Yes	Media	R
TOTAL	Direct (10); Indirect (11)	Yes SJ (10); NO SJ (11)	Yes CE (13); NO CE (8)	Yes (8); No (13)	Yes (8); No (13)	Yes (3); No (18)	Yes (9); No (11)	Technology 6); Media (2); Miscellaneous (11)	T (4); P (6); R (9)

Table 4. Four sections in the book: main foci (based on author's affiliation)

Section	Main Foci					
	LAM	Library	Archive	Museum	Smart Cities	CBO
ONE: In-House, Preparing	Chapter 1, 2					
Two: In the Community	Chapters 3	Chapter 5,		Chapters 5,		Chapter, 4, 6, 7, 8
Three: Theory	Chapter 6, 10, 15	Chapter 16	Chapter 12	Chapter 13	Chapter 14,	Chapter 11,
Four: Futuristics	17, 18, 19, 20,21				Chapter 22	
Total	11	2	1	2	2	5

- LAM save the time of the citizen.
  - Hypothesis: Missing the IDEA of save the time of everyone (not just the haves). (OMC Working Group, 2014)
- LAM are living organism - 24 X 7 - ubiquitous, virtual and synchronous connection that is physically and reliably sound.'
  - Hypothesis: LAM are partially serving the civil needs, and are yet to focus on a whole person approach (InterPARES Trust Project Research Report, 2018).

In short, this book with its special reflections on civic engagement and social justice will open new windows for civic-minded or social justice groups to consider a collaboration with LAM. The book will be in high demand, with examples of multidisciplinary studies, best practices in LAM, and new insights for multicultural and Multifaith digital literacies.

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Common Roots of LAM

The library provides people with the information they need in their everyday lives…. Archives support research. The museum collects, documents, and preserves the cultural heritage/natural history. (Audunson, 2020p. 173).

Some librarian brought the first printed book into the library; another brought the first microfiche reader. Some librarians brought in the first game, and the first scroll, and the first illuminated manuscript. They did this to enhance access, yes, but also to expand the capabilities of the communities they served. They did so not because it was text and therefore OK, but because they were tools that could help. Help, not document the world, but to change it. (Lankes, 2013, p1).

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Section 1
LAM in the Workspace

Chapter 1

An Isolated and Behind-the-Scenes Work Called Conservation:

Developing Collaboration and Community Engagement of Conservation Practice in Indonesia

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ABSTRACT

Conservation is a type of work which requires specific skills, a lengthy experience, particular infrastructures, and arguably extensive time and money. In fact, preserving collections by managing all the aspects required is an important and mandatory task. However, as a developing country in tropical climate, Indonesia is still in a phase where financial aid, skillful experts, and moral support for preserving the cultural heritage are much less than needed. As a result of complex organizational dynamics, building a formal partnership for frequent collaborative conservation work between archives, libraries, and museums nevertheless is far from simple. On the other hand, engaging the community to participate in the practice is particularly challenging due to the nature of conservation work as an isolated activity within an exclusive ecosystem. This chapter aims to discuss whether developing community engagement and collaboration between LAM can serve as an alternative support to constructively improve current conditions and cope with the aforementioned issues.

INTRODUCTION

Across the archipelago, people in Indonesia are living on a plate that could collapse at any time. Geographically, Indonesia is located between the Eurasian, Pacific, and Indo-Australian plates, with active and inactive volcanoes (Suliyati, 2017). Based on United Nations International Strategy for Disaster Reduction (UNISDR), Indonesia is one of the world's most disaster-prone countries (BBC News Indonesia, 2011). The high tectonic activity leads to form a series of volcanoes along the islands of Sumatra, Java, Bali, Nusa Tenggara, Sulawesi, Maluku, and Papua (National Disaster Management Agency of Indonesia, 2016). A series of natural disasters, such as earthquakes, tsunamis, and volcanic eruptions, are looming over various areas throughout the years. In addition to being life-threatening and causing infrastructure damage, the risk for large disasters also impacts the collections, such as books, artifacts, and archives—essentially the valuable collections and archives of individuals and institutions, especially the cultural heritage. All these collections are in danger of being lost and damaged, mainly because the information managers are unprepared for natural disasters. In addition to the natural disasters, human-induced disasters such as arson, vandalism, armed conflicts, or epidemics, looting, theft, illegal export and import, illicit trafficking of cultural property, neglect, destruction of or alteration to heritage, pollution, and disappearance are also considered threats for cultural heritage collections (UNESCO, n.d.; WHC & UNESCO, 2010). According to Srirahayu & Triwastuti (2020), although this type of disaster is likely to occur once every three years or more, it can happen in any unprecedented time, with severe impacts to individual archives, as well as for information institutions such as libraries, archives, and museums (LAMs). Therefore, it is essential to determine the priority assets, and to begin planning practical measures to reduce and eliminate those risks (Pedersoli et al., 2016, p.100).

Financial support and management are fundamental to ensure a successful preservation management. However, as a third world country, Indonesia is still in a phase where financial and moral support for preserving the cultural heritage, especially in the regional level, are much less than needed. According to National Archives of the Republic of Indonesia (ANRI), this is mainly due to the lack of awareness among the leaders of regional institutions and local governments in recognizing the significance of archives (ANRI, 2017). The same problem occurs in other memory institutions like libraries and museums. Berliana (2017) reported that one of the biggest challenges in preserving the manuscripts in the Regional Museum of North Sumatra Province is the low awareness of the human resources. The same issue also occurs in the library of Sang Nila Utama Museum in Palembang, South Sumatera Province. Most of their collections are severely damaged or lost due to lack of awareness in archives management (Wakhid, 2016). Jaszi (2009, p.30) pointed out that preserving the cultural heritage, especially in Indonesia, requires material and financial support that may not be available locally. With the high cost of equipment and materials, the funding becomes a central issue. Most of the government libraries, archives, and museums in Indonesia still find it a challenge to maintain the financial support to preserve their collections comprehensively (Permana & Rohmiyati, 2019). The budget limitations lead to limited facilities and infrastructure (Elmawati & Ismiyati, 2017; Permana & Rohmiyati, 2019). Even in developing countries, Lyall (1997, cited in Teygeler et al., 2001) mentioned that budgets for libraries and archives are shrinking, and preservation activities frequently are drastically cut because the governments consider libraries as a very low priority.

Unfortunately, the lack of funding is not the only challenge for LAMs in Indonesia. This situation is even more difficult because there was no comprehensive written guidance or standard in procuring conservation tools and materials with the exception of the national institutions' advice or instructions.

In many cases where access to acquire proper equipment and materials is limited, institutions must independently determine whether there is any substitute for every equipment and material used for preserving the collection. Some of the standards commonly used are Regulation of the Head of the National Archives of the Republic of Indonesia No.23/2011 or Curative Conservation Guidelines provided by the National Library of Indonesia. Despite the different circumstances and needs in LAMs across various regions in the country, these regulations are used as the main standards for managing paper-based collections. There is still no specific standard for museums in Indonesia where the collection materials have a greater variety than archives or libraries. Financial support, human resources, and managerial issues are the multiple layers of complex challenges to Indonesia's preservation and conservation practice that the country must address. On the other hand, this situation has opened up great opportunities for LAM institutions to collaborate and create a more sustainable conservation system. This chapter aims to discuss whether developing community engagement and collaboration between LAMs can serve as an alternative to constructively improve the condition and cope with the aforementioned issues.

THE CHALLENGES OF CONSERVATION PRACTICE AS AN ISOLATED AND BEHIND-THE-SCENE WORK

Though it is completely essential, preservation and conservation are mostly a behind-the-scene activity in most LAM institutions. Not only because it is arguably less popular yet more expensive than other programs in LAMs like exhibition or acquisition, but the nature of traditional conservation work itself, which needs hygiene in form of things such controlled room, sterilized space, or clean equipment, also requires it to be done exclusively in isolation. As the conserved materials will be available for public access, conservation works most likely consist of sequences of behind-the-scene activities from preparing and performing conservation treatment on the items to organizing them for the storage or exhibition (NARA, n.d.; Kutilainen, 2015). As a result, engaging audience in this process is pretty challenging. Recently, the State Library of Victoria (2020) in Australia offered a tour to their conservation studio while in 2015, one of the authors had a chance to visit the Grimwade Conservation Centre at University of Melbourne during the Open House Melbourne. All of these programs are certainly not set for daily activities and last for only couple of hours. Although it shows admirable attempts to introduce preservation works, it also suggests how tricky it is to let people engage in conservation work, especially the traditional ones. In the Indonesian context, most people in community never even realize or are aware with the existence of conservation work in LAM institutions.

On the lack of public awareness about conservation work, the Head of Collection Conservation and Documentation from Museum Sonobudoyo in Yogyakarta, Indonesia, made an analogy that the conservation workshop is the kitchen of the museum, which means that it is hidden and typically not aimed for the public (E. Sustiyadi, personal communication, September 26, 2019). He intends to make it open in order to show its importance to the communities.

Generally, preservation of archives is not commonly known simply because of the lack of attention not only from the public, but also the institution. The Scottish Council of Archives' community survey showed a high interest for basic conservation, cataloguing, and digital preservation (SCA, 2020), but most Indonesian institutions are still more focused on managing records of transactional events (Vitariza & Husna, 2016). The volume of the collections in total is so huge that they have to work with newer

archives first (Primanuella, 2009). Even though this works well for the administrative process, they are at a big chance to skip one of the most critical parts of archives' life cycle: preservation and conservation.

Interestingly, the practice of preservation between libraries, archives, and museums has become more relevant to each other. Addressing the ongoing discussion about the idea of reconvergence, and the debates that libraries, archives, and, museums are different from one another, Harvey and Mahard (2014) stated that "the lines that previously separated traditionally siloed institutions are blurring, so that preservation practice contained in one kind of institution is becoming relevant to another kind of institution". For example, museums may have deteriorated paper collections which most archives or libraries are more familiar to treat. Likewise, archives or libraries could have a 3D artefact to repair which museums commonly deal with. In fact, most of the deteriorated paper collections in the National Museum of Indonesia was treated with the help of the National Library of Indonesia. The non-formal partnership between the National Museum of Indonesia and the National Library of Indonesia has been going for about a year. The National Library has been helping the National Museum in conducting the conservation practice for their manuscript collections. The National Museum has no skilled conservators to deal with paper-based materials as they mostly treat textiles and 3D artefacts. However, it is unclear whether the practice will be transformed into a formal partnership. This opens a possibility for collaboration and partnership as institutions assist each other, share knowledge and skills, and learn from one another.

In the digital world, the preservation practice is transforming even more as the "shared goal…and the responsibility of many people in many institutions" (Conway, 1996). A successful program in one institution might be the best practice for another institutions. Besides, preservation principles in general can be applied to all materials (Harvey & Mahard, 2014). Therefore, it is fundamental for LAM institutions to have a collaboration with one another—not only archives having a cooperation with another archives, libraries with another libraries, and so on, but also extending the partnership across institutions. In fact, Webb (2002, cited in Brown, 2009) argued that in conducting preservation practice, "the willingness to listen, consult, learn and to form alliances and partnerships will all be important". In a connected environment today, to build a comprehensive and continuous network and communication between these institutions will even be more pertinent with the help of information technology.

According to the 2021 Index of Economic Freedom, Indonesia is Southeast Asia's largest economy (IEF) (2021). Along with it, the cultural sector in Indonesia also grows attention over the years. The governments even allocate an endowment fund of 5 trillion rupiahs for cultural preservation and development (Purnamasari, 2019). However, as of 2020, there are more than 400 regencies and over 98 cities in Indonesia (Minister of Home Affairs Regulation No.72, 2019), making it challenging to dispense the government funds evenly to memory institutions across the country. Other than economic and geographical matters, large populations in Indonesia also give preservation and conservation work another challenge: awareness. Most of the public have low awareness of exactly how valuable the nation's cultural heritage collections are, and they are not familiar with preservation and conservation practice. With the recent trends in reconvergence, however, it is intriguing to ask whether collaboration between LAM institutions in conservation practice has a potential to strengthen the institutions. By working together, they could arguably have a better opportunity to address the financial challenge, geographical access, and shortage of community awareness.

It has been established that preservation and conservation efforts towards a series of information collections have not became a priority. In fact, apart from natural disasters, the risk of other disasters caused by humans, such as fires and floods, or geographical conditions, like weather and climatic conditions, also presents challenges to Indonesia's preservation and conservation efforts. If there is not enough at-

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tention, the fluctuating temperature and humidity could damage the information material more quickly. As a result of its proximity to the equator, Indonesia and most Southeast Asian countries experience significant challenges related to weather on their memory collections. Sobel (2012) said that weather in the tropics changes spontaneously more than that in higher latitudes. Even if the weather is somehow quite predictable, there is a relatively high level of humidity in these regions. This causes many insect species to thrive excellently in tropical climates, with fewer ways to stop them (Teygeler et al., 2001) Pinniger (1994, cited in Teygeler et al., 2001) also states that insects are one of the most significant contributors to the loss and damage to cultural heritage collections. There are more food sources for insects to survive and thrive in tropical countries.

More challenges in the preservation effort are neglect of archive protection, as well as lack of high-quality resources and human resources. Skilled, trained, and professional people are unquestionable important (Ardiansyah, 2015). However, the number of professional resources is limited because education with the primary focus on preservation and conservation is still limited. On the other hand, Prepis (2018) stated that the future of the world's cultural and natural heritage and intangible cultural heritage will largely depend on the decisions and actions of the new generation who will be the leaders in the coming years. The Directorate of Cultural Protection, Ministry of Education and Culture of Indonesia (2015) also stated that the human resources that Indonesia has in the field of conservation, especially the conservation of cultural heritage objects, are still in minimal quantities. The need for expertise in conservation practices continues to increase, but the number of available human resources has never met this need (Geller, 1986). This is caused by the regeneration of human resources that is not optimal. The complexity of the preservation and conservation problems is indeed quite significant and requires various improvement efforts from information managers, observers, and researchers.

DEVELOPING COLLABORATION AND COMMUNITY ENGAGEMENT OF CONSERVATION PRACTICE

Collaborations Between LAM Institutions: Is it Possible?

The practice of collaboration between public and private institutions and LAM institutions in Indonesia is still rarely ever documented. Moreover, collaboration in various information management institutions is arguably necessary to save collections in various media that contain the richness of the nation's culture and history. In contrast, collaboration between LAMs and education institutions, especially in the higher education context, is more common and in fact encouraged, to enrich the knowledge of students in the disciplines of library or archival science, arts, and other fields of cultural studies. Collaboration initiatives are also more open for academic research needs and development of knowledge. In the Archives and Records Management study program of Universitas Gadjah Mada, Yogyakarta, Indonesia where the authors work, the study program did not feel any barrier, whether technical or political, to work with all three somehow different institutions. The study program frequently communicates with and visits archives, libraries, and museums to learn from and share knowledge and skills with conservators. In fact, the archives preservation laboratory adopted and combined principles and techniques from all LAM institutions for their students' hands-on practicum, hence benefitting the students. This example shows that collaborative practices of conservation practice shows a great potential, and hence must be introduced and initiated in a bigger level.

Nevertheless, such case may be different in the Indonesian LAM institutions themselves. Apart from their own financial struggles, collaboration between LAMs is challenging based on two perspectives: the technical and the political ones. The information institutions are technically considered to have separate conservation responsibilities based on different collections. Libraries usually have responsibility to protect material in the form of books, archives are responsible to preserve paper sheets, and museums have a more crucial role for conserving artifact objects. This conventional understanding is culturally rooted in many information professionals in Indonesia. Discussion is exclusively done within the same institutions as they believe that conservation work in libraries is nonidentical with the one in archives or museums and vice versa. As a result, they tend to do their conservation work in isolation and rarely feel the need to share with one another. This happens even in some regions where the state archives and libraries are located in the same complex with their buildings face each other. At the national level, there are national archives, libraries, and museums with responsibilities for different forms of information. However, archives and libraries are usually associated as one institution at the provincial and district or city levels. This particular matter is what widens the problems in collaboration between LAMs. In combined institutions, the responsibility for managing and presenting information remains separate by form because their references of responsibilities are different at the national scale.

An interesting case can be observed at a province-level library and archives in Java. The province library is fortunate to receive tools and equipment from its parent institutions. Yet, they do not have the human resources to start the conservation work and operate the equipment. On the other hand, the state archives benefit from trained human resources while their equipment is still limited. Surprisingly, they both have no idea about what each other doing and as the result, the equipment in the province library stands idle while the conservators in the state archives keep seeking help from the National Archives. Another example can be seen during the Aceh's tsunami disaster in 2004. The National Library of Indonesia assisted the Regional Library of Nangroe Aceh Darussalam to save its collections (Mustafa, 2007). The National Library identified and sent local historical documents with severe damage to the laboratory in Jakarta for a further restoration process. Nevertheless, the National Archives of Indonesia also participated in the collection rescue process during the tsunami disaster (Suliyati, 2017). They saved 840 meters land certificates with the help of Japanese government and conducted restoration as well. However, each institution acted individually and only focused on specific collection they thought their institutions were responsible for.

Ultimately, that technical perspective deeply affects the political perspectives. There is an ongoing growth of institutional ego and pride that an institution is better and more important than the others. As a result, they believe that they have disparate mission. This political tension may arise in form of simple issues such as the obligatory to have different terms and vocabularies or the question whether a state institution should be named with the word archives or library on the first place. The more complex issues can be seen in the previous example as well. Nonetheless, it is more interesting to think the possibilities of progress, goals, and benefits that can be achieved when the conventional perspectives can be put aside and replaced with a collaborative approach.

Although the technical and political perspectives show the challenges in working together, LAM collaboration in conservation work is not inexistent. Previously, the authors have written a paper on the research centers in Yogyakarta across three institutions, namely the Yogyakarta Palace, Pakualaman, Sonobudoyo Museum, and Gadjah Mada University (Putranto & Sari, 2018). The data shows that cultural institutions apply collaborative practices for various information managers (curators, museologists, librarians, and archivists) to preserve their cultural collections. In addition, a sharing and discussion session

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with the topic of preservation and conservation is also proven to be a form of collaboration possible for LAMs. The skills, knowledge, and experience among the human resources would increase and benefit their respective institutions when preservation and conservation practitioners and experts performed together. In addition, the following case study serves as examples to support the argument that collaboration in conservation work between LAM institutions is possible and arguably benefits each institution.

Conserving Collections Collaboratively: The Case of Radya Pustaka Museum

An interesting case of collaboration in conservation practice between LAM institutions was the one in Radya Pustaka Museum in Solo, Central Java, Indonesia, earlier this year. The museum, which is a public museum located in the cultural capital of Central Java province, holds hundreds of historical manuscripts handwritten in Old Javanese from 1700-1800. Moreover, a massive amount yet uncatalogued and unorganized colonial archives and books are stored in the library building. The museum had conducted regular conservation practice for their paper-based collection; however, it was limited to some methods such as encapsulation or fumigation. The museum's staffs had no formal trainings of paper conservation, but only attended workshops for treating stones and metal objects. Interestingly, the museum did not exclusively form an alliance with other museum institutions. Instead, it was open for a partnership with archives or libraries.

In early February 2021, the National Archives of Indonesia (ANRI), led by its Director of Preservation contacted the museum asking whether the museum needed any assistance for their paper conservation works. The museum agreed to receive some help on 22 - 26 February 2021 to do restoration process for its damaged manuscripts and ANRI sent two of their conservators to the museum. In two days, the two conservators together with the museum's staffs complete the lamination treatment for more than 500 archives and 1 gigantic map in the museum's library. The restoration methods that they carried out were lamination, encapsulation, and digitalization to preserve the archives. There were more than 400 archives saved from biological damage factors such as molds and pests or damage from age and disasters. The conservators also shared their knowledge and trained their skills in conserving manuscripts, particularly the lamination treatment, to the museum staffs. Finally, they donated one roll of Japanese tissue and one roll of polyester film to the museum. At the same time, the museum also received support from the National Library of Indonesia. Unlike the National Archives, two of the National Library conservators went to the museum and took the 6 maps and 1 book to be brought back to their laboratory in Jakarta. They said that the conservation treatment for these collections would take around three months to complete and before the collections being brought back to the museum.

The museum admitted that both of these supports were very helpful for them. Not only their staffs were assisted to repair some paper-based collections in quantity, but they also learned the skills and principles so that they admitted they were confident to do it by themselves. However, the museum could not get some infrastructures and equipment locally and it needed some help from either of the national institutions for it. Nevertheless, the museum was also unable to receive regular support as this was just a casual partnership and a top-to-bottom approach. The support was actually part of the preservation program from both the National Archives and the National Library where they gave assistance to some local institutions in conserving their collection. As there was no formal cooperation, the assistance was momentous and depended on the national institutions' program. Curiously, it was complicated for the museum to form a formal partnership directly as they were unable to do it in the legal context. The

museum needed to ask for approval from its board organization in the city and this process could be long and tricky.

This case shows how in Indonesia, administrative issues could be a barrier even though all of the LAM institutions had already intention for a collaboration. On the other hand, this case also shows how Indonesian LAMs is totally possible to form a collaboration across institutions. ANRI admitted that Indonesia needs more collaboration programs between archive institutions, museums, kingdoms, and cultural centers to support archive preservation and expand community access (ANRI, 2021a). It is indeed possible to have a more extensive and more frequent collaboration program between LAM institutions in Indonesia. However, there should be more commitment too from all the stakeholders involved. It is possible to resolve the challenges in each institution more easily for better use of archival materials for the community if collaboration can be done more efficiently.

Engaging the Community to Participate in the Conservation Work

Several initiatives have been made by national institutions in Indonesia to engage the community and the public in the conservation practice. Community engagement can be implemented by LAMs in Indonesia in a number of ways, e.g. by empowering and educating the public on the importance and skills of managing personal records and archives; opening access for resources and references in this area by making them accessible online; inviting the public to observe and learn activities of preservation and conservation work; allowing the community to partake in courses, trainings, and workshops; and offering and promoting services for the public in collection preservation, conservation, and management. These efforts represent a two-way reciprocal relationship between community and LAMs, namely the community's involvement to support LAMs, and the services LAMs provide for the community. Increased understanding and interest of the public on this matter will lead to demands for better management of LAM institutions, more funding, more trainings and workshops, more available higher quality resources and materials, higher quality education in this area, hence higher quality human resources and better management of the records and archives, which include valuable personal, state, or heritage collections.

Although Indonesian LAMs at the national level have implemented community engagement programs to some extent, this type of approach is nearly unheard of in the regional level. The National Archives of the Republic of Indonesia introduces a program which responds to the community needs by educating the public on preventing measures, and even offering repair services for personal archives damaged by a natural disaster without any cost. Meanwhile, the National Library of the Republic of Indonesia forms a National Coordination Meeting program to connect with the community. Lastly, National Museum of Indonesia creates a program called #Rabu2020 where visitors are invited to learn about the practice. Thus, it is interesting to explore these initiatives and to question whether engaging community in the practice will significantly help with not only the lack of moral support from the public, but also democratize the previously exclusive practice among LAM institutions.

Laraska

The idea of making a restoration program for community-based archives emerged back in 2004 because of the tsunami in Aceh, Indonesia. At that time, thousands of manuscripts and essential files were destroyed by mud and water. But people need those documents to be restored as soon as possible to claim their assets. In 2013, ANRI finally created the program called Laraska, which stands for Layanan Restorasi

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Arsip Keluarga or Family Archives Restoration Service. Suwarto (2021) in personal interviewed with us said that the demand for restoration service programs is very high, and the community is very interested in being part of it. That is mainly because many people still do not understand how to manage, protect, and evacuate archives from disasters.

In Laraska, people can bring their damaged files to ANRI's office in the Ampera Raya, South Jakarta (ANRI, 2021b). Since 2019, there were 33.193 sheets of archives from 790 families that ANRI has helped to restore in Jabodetabek (Jakarta, Bogor, Depok, Tangerang, Bekasi) (ANRI, 2021c). Yet, in Kampung Laraska, the preservation group from ANRI will visit a location and directly train the community on restoring archives if any disaster happens. Due to Covid-19, the launching of Kampung Laraska this May 2021 will be held online. However, Suwarto (2021) also said that every communication and preparation could not be carried out online until execution. Because even though the community could learn how to do the restoration by online learning, like Youtube videos, the actual restoration method would be so much different.

One of the biggest challenges in this program is the people's awareness in saving the important archives from disaster. Their knowledge of the right archival system and preservation is still so low. Laraska and Kampung Laraska, on the other side, are helping out so much the community to get to know their archives better. It helps the community to know what to do and don't in disasters like floods or tsunamis. This kind of program could also help to introduce archival preservation to the community and involve them in the efforts to save the community-based cultural heritage in Indonesia.

The Laraska program was also later developed into Kampung Laraska or Laraska Village in line with the intentions described above. This program directly trains people in a particular area on how to restore archives after disasters. Furthermore, this program also tried to educate people on keeping, preparing, and saving the archives for catastrophe events. There will be several divisions with numbers of people who work closely with the local head of the region. They will apply the methods taught by ANRI to restore and preserve the community archives there.

It is the aim of Kampung Laraska to empower the community for its legacy because it is impossible to know when the disaster would come. Therefore, no one could protect the archives of the community but themselves if anything happens so suddenly. ANRI hopes that as Kampug Laraska continues to educate people on how vital their archives are, prepares and manages archives before and after disasters, people will be able to independently handle archives' potential to be destroyed by disasters. Not only that, hopefully, all of the people in this program eventually could even share their knowledge with one another on keeping the archives for long-term preservation.

The Laraska and Kampung Laraska programs are indeed quite focused on empowering the community in preserving their own archives, which will be significant especially in case of disasters. ANRI's ongoing expansion shows that the greater the community's role in saving their archives, the higher the potential for archives to be saved from natural disasters and human error.

The National Library of Indonesia

Apart from Laraska, the Indonesian National Library has created the 2021 National Library Coordination Meeting. This program is designed to strengthen literacy content through libraries and being implemented online via zoom cloud meetings (National Library of Indonesia, 2021a). By completing 17 consultation rooms, the Indonesian National Library provides services that will let the public coordinate directly regarding issues in the library sector (National Library of Indonesia, 2021b). One of the open discussion

rooms took the theme of preservation and digitization of library materials. In late April 2021, Indonesian National Library also created webinars and workshops on the Conservation of Library Materials and Ancient Manuscripts. It aims to socialize the guidelines for easily digitizing ancient manuscripts with available resources (National Library of Indonesia, 2021c). This kind of program creates a bigger chance for the community to involve and understand more about every challenge in memory institutions, especially libraries. Furthermore, it also creates an opportunity to gain perspective from different institutions with similar collection materials. When the program was implemented online, it was unexpected that many practitioners expressed their questions and concerns regarding the preservation program carried out in their own institutions, from libraries, archives and museums. This large number of questioners also proves that the potential for collaboration is very high and will help all stakeholders to carry out a more comprehensive preservation program.

Rabu2020

The Indonesian National Museum (MNI, 2020a) has also created a public program called #Rabu2020 (Rabu means Wednesday, and it is held every Wednesday). This activity aims to make the community involved in the efforts to preserve the museum collection (Singgam, 2020). Before the pandemic, conservation activities usually continued during community visits. Based on the questions and comments of the visitors, there is a high interest in the conservation activities of the museum collections from the public. Every student from universities is also allowed to register and participate in conservation activities under the conservators' supervision (MNI, 2020b). #Rabu2020 recently has stopped due to the pandemic. Still, the intention of this program remained clear that the involvement of communities is one of the best ways to spread the knowledge of collection conservation in the museum. Community involvement can also impact efforts to increase public awareness regarding the importance of cultural and historical values of the collection. Programs such as #Rabu2020 show that collaboration does not necessarily refer to the formal partnerships between two institutions. It is as important, if not more, to build a sustainable and meaningful relationship with visitors and the public as a crucial part of the existence of LAM institutions.

CONCLUSION

Due to its nature, preservation and conservation practice is often overlooked and is done exclusively in isolation, even between LAM institutions. The outdated technical and political perspectives are responsible for the reluctance among LAM institutions to start a collaborative work. Moreover, the Indonesian public is rarely aware about preservation and conservation and hardly able to access or learn the working processes.

Multiple issues and challenges in conservation work have eventually forced some LAM institutions to form an alliance across libraries, archives, and museums while at the same time invite communities to participate in the process by empowering them with the understanding of basic skills, principles, and knowledge. It is challenging to include and engage the community in a process where long experience, specific education, or particular infrastructures are required. Understanding the cans and can'ts is crucial whereas having continuous communication is obligatory. In the context of a disaster-prone country like Indonesia, building a collaboration between LAM institutions and community engage-

ment for conservation work serves as one of the strategies to support the cultural heritage preservation across the archipelago. Some best practices show that institutional collaboration across LAMs as well as involving communities in conservation practice is possible and fundamentally helps addressing the current multiple issues and challenges.

Therefore, there needs to be an open mindset and attitude among LAM institutions to push the boundaries and begin taking the first systematical steps in order to set a sustainable collaborative approach. This study shows that there are opportunities for fruitful outcomes to be gained from such community engagement and institutional collaboration of LAMs. This suggests that there is potential that such discussion will be initiated in the national level in the near future. Therefore, it is recommended that further studies explore and identify plans for the best strategies, actions, and models of collaboration and community engagement for Indonesian LAMs. In addition, specific standards for conservation practices that are applicable across institutions would improve conservation practice. In the same line, the monitoring and evaluation aspect must be studied as well in order to ensure the assessment of standards and quality assurance of conservation practice and community engagement programs in Indonesia. Finally, it is important for further research to specifically address the political dimension which often affect the conservation practice in Indonesia.

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KEY TERMS AND DEFINITIONS

Collaboration: An attempt to get LAM (libraries, archives, museums) institutions to work together on the preservation and conservation of collections.

Community Archives: Archives or documents that are owned by the community.

Community Empowerment: The efforts to educate and train people to be able to save and preserve their own assets independently.

Community Engagement: One of the ways to make the community involved in the efforts to save the cultural heritage, particularly in Indonesia.

Lamination: One of the restoration methods by applying Japanese tissue as additional layer to strengthen deteriorated paper-based materials.

Laraska: Stands for Layanan Restorasi Arsip Keluarga, which in English means Family Archives Restoration Service. Created by The National Archive of the Republic of Indonesia, this program aims to help the community restored its archives in a post-disaster phase.

Restoration: A direct effort to repair the damaged cultural heritage objects by physically and chemically intervening the object.

Chapter 2

Are There Inclusive, Accessible Reference Tools for the Post–Pandemic Era?
Exploring Literacy Resources to Teach Social Justice Through Community Engagement

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ABSTRACT

Attempts to integrate the twain (i.e., social justice [SJ] and civic engagement [CE]) are slowly emerging. This chapter critically explores the tools for inclusivity and engagement -- to facilitate developing digital literacies for an integrated program. Among the roles of LAM, such as, literacy, collaboration, outreach, advocacy, etc. this chapter deals with digital literacies -- the aim is to reduce the digital divide between haves and have-nots. The digital divide became most obvious during COVID-19, and therefore this dimension is the focus. The method adopted is a semi-automated strategy to support a rationale for analysis and validation of its findings. Strongly recommends the need to conduct COVID-19's impacted digital exclusion areas -- with due consideration for the work done at New Literacies Research Lab at the University of Connecticut. A combined quantitative and qualitative assessment will be required to remove the digital inequalities.. An innovative approach for data visualization is provided. It is a faceted technique developed by Dr. S R Ranganathan (viz., PMEST – personality, matter, energy, space, and time).

INTRODUCTION

This chapter has two aims, first to find significant reference tools (henceforth tools). And, second tto critically evaluate discovery/dissemination aids. In particular, four challenges about functionality and usability of the tools will look for suitable responses, viz.,

- Is there a reduction in bias and discrimination, impact or explicit?
- In understanding the other as human, promote compassion, tolerance, and intercultural/interfaith harmony?
- Does metadata enable engagement?
- How responsive, equitable and inclusive in structure and design is the Webflow (ie., full compliance with Accessibility standards, and conform to Level AA standards as per WCAG 2.0?

"There can be no true democracy without reference service." (Ranganathan, 1961, p. 73; Gopinath, 1992, p. 53; Courtney, M. (2016, p. 21). Accordingly, democratic and engaging service begins with inclusive and accessible reference work and reference tools. This chapter critically explores the tools for inclusivity and engagement. (Finley, 2011; Remtulla, 2008; Delgado-Algarra & Cuenca-López, 2020).

Resources for Developing Literacies for Teaching Social Justice through Civic Engagement

To think of literacy that is integrated, one needs to first look internally and get started. (Larson, Baydoun, & Pickens, n.d.; Soto, 2018; Martin 2019).

Examples that are illustrated, in this chapter include Race, Racism, Anti-Racism Literacy (Table 10), Peace Literacy (Table 11), Tolerance Literacy (Table 12), Peace Literacy: Hands-on activity with a focus (Table 13), Critical Peace Literacy Session as a Life Skill (template for a lesson plan or workshop) (Table 14), Verifying Fake News (Table 16), A quiz about food -- Religious/cultural accommodation at the workplace: (Table 15). A few templates in the chapter are provided, such as:

Appendix One: OPAC's Accessibility--is everyone being served?
Appendix Two: Learning Social Justice Through Community Engagement (to Evaluate Resources)

BACKGROUND AND METHOD

"… There has been less conceptual development exploring the relationship between social justice and civic engagement. Indeed, as a term, civic engagement lacks a singular universal definition." (Richards-Schuster et al., 2019. P. 29). Nevertheless, weaving together SJ & CE, and offering an integrated academic program is common in many higher educational institutions (Calderón & Pollack, 2015). For example, Social Justice and Civic Engagement, at Lebanon Valley, Pennsylvania; Wilfrid Laurier University, Ontario; Eugene Lang College, New York; Dominican University, Illinois, University of Victoria, British Columbia; etc. The relevant resources identified in Tables 4, 8, 18, and 19 are the best starting point for an exploration of the emerging integrated paths (see Closson, & Mullins Nelson, 2009; see also. May & Leighton, 2013).

One of the criteria, for example, six factors (Taher, 2021), viz., accuracy, credibility, frequency, reliability, and validity, are used in the evaluation of the tools. These six factors are based on best practices in the literature (Katz 2002, Katzer, et al., 1998). Among the common reference tools, this chapter will evaluate web-based pathfinders, websites of journals, databases, OPAC, etc. Selecting these is based on the Reader Advisory's four primary formats described by Wong, & Saunders (2020, p. 662) - i.e., books, databases & catalog-related sources, journals, and free web resources. This selection of tools is needed

either for monitoring (to get up-to-date information); finding specific information (for a particular action) and searching exhaustively (for a project or research) (Connaway, 2015).

Challenges in Finding Resources for Evaluation of Reference Tools

For a literature survey, IGI-Global has many publications closer to this area. Hence, it is apt to first analyze the same. A literature search on LAM for publications by IGI-Global.com, using Google scholar reveals there are 238 results (includes, book chapters and articles), between 2017 and 2021. A little change in the string terms, but no change in time, LAM and "digital divide" brings 2 results. Another search, adding the phrase "resource discovery," with no change in time, shows three results. These three results have no resemblance to the present chapter, in anyways.

A general search, in Google Scholar, by any publisher on LAM and resource discovery, reveals many areas are studied, and it also highlights the challenges (Julien, 2018; Marlino, 2002; Dunsmore 2002; Thomas, 2017; Tyson, 2019). There is a "dearth of literature outlining best practices for selecting a discovery service" (Popp, & Dallis, 2012). The existing literature has already dealt with significant topics in web-scale resource discovery, which will not be discussed here, viz., future (Breeding, 2015); products and vendors (Breeding, 2014); automation (Babu, & Krishnamurthy, 2013); usability (Fry, & Rich, 2011), and demystifying metadata across LAMs (Elings & Waibel, 2007). Hence, this chapter, focused on EDI, aims to explore and evaluate the strengths and weaknesses of the tools and suggest the options to the thought leaders.

What is required today is metainformation or data, about information sources. In short, a literature survey identifies the following challenges:

- The literacy framework and core competencies may have some common converging points for LAM (Zavalina, & Burke, 2021). But there are hardly any studies about a CE &.
- inconsistent terminology of the subject (Incluseum.com; Beverly, 2021; Bolam et al., 2018)
- lack of evidence-based studies;
- the recency of the subject matter of diversity, equity, and inclusion in general, and its application in finding-aids. (Julien, 2018; Tyson, 2019; Popp, & Dallis, 2012).

Hence, this chapter aims to explore the field and suggest the alternatives to fill such gaps. A keyword search in OPACs, Google, Google Scholar, and other propriety databases (open source) was conducted. For example. Pathfinders were found by using the following search string in Google: pathfinder OR path-finder & "Social Justice" & "Civic Engagement", & "subject guide" OR "research guide."

The methodology adopted in this chapter is a mix of using best practices (e.g., subject guides, (Books et al., 2019), and a combination of digital and other indicators. Using digital tools, websites' Accessibility and contrast are tested (source: webaim.org/resources/contrastchecker; and webaccessibility.com). The Six As criteria (Taher, 2021) for evaluating reference tools. Dr. S R Ranganathan's PMEST, a tool for facet analysis. (PMEST = Personality, Matter, Energy, Space, and Time, Udo & Chimah, 2015). EDI indicators, as in Tables 2, 3, etc. (source: www.creativebloq.com), and the LAM Scales [(Hunt, 1972), adapted].

SOCIAL JUSTICE (SJ) PATHFINDERS

The template (in Table 1) is based on Six A's (Taher, 2021) -- can be used for exclusive or brief literacy sessions in a workshop or lesson plan. The table has factors to evaluate inclusion and accessibility. The learner/student can be asked to evaluate EDI compliance. The instructor can define the aim, objective, method, and outcome using this template.

Table 1. A checklist as a template, for evaluation of digital pathfinders

	Analysis / Synthesis	Rating
**Authority (e. g., Owner, contributor, publisher):		
● Hands-on: E.g., Does it have a clear name?		
Accuracy (e.g., credible; reliable and verifiable; linked: .org is a reliable domain, organizations		
● Hands-on: Does it have any typo (spelling errors)?		
Approach (e.g., Scope, objectivity: clear or confusing)		
● Hands-on: Policy statement about EDI (upfront on the website):		
o equity, e.g., Racial bias? cares for the minority?		
Age e.g., Current or outdated:		
● Hands-on: Last updated on		
Audience Level (e.g., generic or specific: clients; safe by age?)		
● Hands-on: by type of users (e.g., academic)?		
Accessibility (e.g., mobile-friendly)		
● Hands-on Ignores web usability approach, e.g., works only with Chrome;		
To assess the EDI, here are three Indicators (as a sample):		
● Equitable, i.e., meets different physical, visual, technical needs;		
● Flexible, i.e., meet different behaviors, different devices;		
● Tolerant, i.e., correcting errors, updated content, open for feedback (source: www.creativebloq.com)		

Suggested rating (depending on objective, i.e., speed, or accuracy), 5 = Exceptional, 4=excellent; 3=Aver; 2 = needs help; 1 = unsatisfactory, needs special attention].

The implication of Table 1: An instructor can adapt this template to offer one-to-one skills or in a group. The Six criteria for evaluating the sources give a good way to be empowered. It is also easy to remember employing the 6 As, when in doubt.

Based on EDI Factors (Table 2), the instructor can either go with a Frequency of occurrence &/or Affinity Analysis of the Web-based Pathfinders. The rating scale is, one star indicates the response is poor in quality, five stars indicate excellent quality. EDI Compliance in column four, reveals only five have three stars; column three deals with accessibility (using a digital test); a result of the test shows none of the pathfinders is 100 accessible; only two are on the top with 85%. In column five only five have current content, e.g., CVOID related content.

The implication of Table 2: generally, it is about finding the level of inclusion and access. Specifically, it is about currency in its topical coverage. An instructor can use this data for further evaluation or engage on similar lines. A user can decide to pick these pathfinders - - e.g., that have COVID-19 content - - to study patterns in coverage.

Table 2. Quantifying the status of EDI - evaluating (e.g., inclusion and access) SJ pathfinders

	1	3	4	5
Pathfinder	**Authority (or owner)**	**Accessibility % / Contrast Ratio (& errors)**	**Accuracy (i.e., Web Design, EDI Compatible) / EDI Statement as a topic**	**Audience (is there only general or specific, e.g., COVID-19 related content)**
EPFR	Media Specialist (Library)	85 / 8.59:1 (91)	***	General
SSCP	ThinkMind Digital Library	84/ 8.59:1 (12)	**	General
PWP	Parkway West School	82 / 8.59:1 (1)	***	Yes
SJTP	?	85 / 8.59:1 (304)	***	Yes
PPSJ	?	N/a // 8.59:1 (2)	**	General
PPJIS	SDG 16 Hub	80/ 8.59:1 (25)	**	Yes
EPEI		N/a/ 8.59:1 (17)	***	General
PI		73/ 8.59:1 (33)	**	Yes
AP		79/ 8.59:1 (8)	***	Yes

[Note: Titles are abbreviated; not listed due to constraints. Full details are available in the Appendix at the end of the book].

Summary: Table 2 provides answers to understand the stated question: "Are reference tools improving in accessibility and inclusivity."

Gap is seen in Table 2:

- Accessibility % / Contrast Ratio
- Accuracy in two contexts i.e., Web Design, and EDI Compatible
- The absence of an EDI Statement as a topic on a website is a direct answer to the question.

SOCIAL JUSTICE AND CIVIC ENGAGEMENT JOURNALS

For a strategy to develop new literacy tools, here are good initiatives. Table 3 is the proposed template to evaluate SJ Journal's Quality. There use 27 Indicators to detect the presence or absence of EDI. The idea is to use the lens of a contributing author. The rating scale – one indicates poor EDI quality (or negative indicator), five stars indicate excellent EDI quality or positive indicators

Profiled here are 17 SJ & CE journals (Table 4). These journal's websites are evaluated to assess the factors relating to diversity. From the 27 indicators listed in Table 3, only 8 are applied here. For example, diversity is tested to find if the board of editors is diverse or not – if diverse is it multicultural, multidisciplinary, and/or multi-national.

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Table 3. Proposed indicators to evaluate journal's quality

1. Governance/Editorial Board (EDI compliance)
2. Name of Journal/Publisher (credible; inclusive)
3. Interdisciplinary
4. Embargo
5. Author's name, affiliation, contact details
6. Author's rights (reusing or reposing)
7. Author's fees (Article-processing charges)
8. Access fee (Reader)
9. Traditional/Closed Access Journal (TA)
10. Open Access Journal (OA)
11. TA &/or OA (i.e., hybrid)
12. Gold - Journals make all of their articles free online
13. Green – Author's publish in any journal but make a draft of the article available in an institutional repository
14. Accessibility of Journal's contents (print, e-format, etc.)
15. Review Policy (e.g., Criteria for Assessment of Research Article)
16. Plagiarism software
17. Turnaround time (submission to final stage)
18. Intersectionality
19. Indexed in many subject databases
20. Contact details
21. Follow Web Standards
22. Impact factor
23. SJR
24. SNP
25. CiteScore
26. Peer review taxonomy
27. Equity, Diversity Inclusion (EDI) Statement

In Table 4, the Scale is: "Yes" =**Ö**; "No" = **X**; "Not Sure" =**?** The EDI rating scale is, overall – one-star indicates poor in quality, five stars indicate excellent quality. Information in websites is traditionally evaluated for its **Quality** of Website Design; And Not for **Equity and Equality, Inclusivity, Accessibility**, etc. Table 4, uses an EDI lens (esp., Indicators 1,14, and 28).

Obviously in any of the 17 websites, it is difficult to find (i.e., if they have a distinct and independent) topic about EDI statement or EDI POLICY.

The implication of Table 4: generally, it is about finding the level of EDI. Specifically, it is about barriers that are relevant in the case of visual accessibility; or exclusion of people with physical disabilities. An instructor can use this data for engaging the students in the evaluation of bias for instance, in the composition of the peer-reviewers. A user can decide to pick all these sites that have no embargo - - to be engaged in research or publication activity.

Table 4. Evaluating the quality of SJ journal's websites

	Rating EDI	1. Board's diversity	4.Embargo (as a barrier)	14. Access (equitable)	22 web std.,	28 EDI Statement as a topic
SJR	**	√	?	√	?	?
ECSJ	*	√	?	?	?	?
IJCJ	*	√	?	?	?	?
CRIL	*	√	?	?	?	?
JPSJ	*	?	?	√	?	?
SSJ:	?	√	?	?	?	?
DCID	?	√	?	?	?	?
JLOE	?	√	?	√	?	?
EDIIJ	?	√	?	?	?	?
MSI	?	√	?	?	?	?
RIE	?	√	?	?	?	?
JAS	*	X	?	√	?	?
ANJ	*	X	X	X	?	X
JSI	***	√	√	√	√	X
HHR	***	√	?	X	√	X
JCC	*	?	?	?	?	?
SI	**	?	?	X	X	X

Template Using EDI Factors' Frequency &/or Affinity Analysis of the Journal Website [Indicators here, are taken from Table 3]

[Note: Titles are abbreviated; not listed due to constraints. Full details are available in the Appendix at the end of the book; or ask the author].

Summary: Table 4 provides answers to understand the stated question: "Are reference tools improving in accessibility and inclusivity."

Gaps in Table 4:

- Embargo as a barrier to timely access (not sure)
- The absence of an EDI Statement as a topic on a website is a direct answer to the question.
- Rating EDI, overall
- Board's diversity
- Access (equitable)
- Web standard.,

Authority Record: Social Justice at Library of Congress

Among the tools used in a literacy service, Subject Headings has an important place as part of understanding key concepts.

- Narrower Term: Anti-racism.

- Narrower Term: Distributive justice.
- Narrower Term: Environmental justice.
- Narrower Term: Journalism and social justice
- Narrower Term: Racial justice
- Narrower Term: Reparations for historical injustices

Authority Record: Civic Empowerment / Civic Engagement @ Library of Congress

The following Subject Headings don't provide narrower term (NT) as above – rather these are all related terms – labeled as References (RT). That is one main difference between these two subject headings.

Box 1.

Authorized Heading 1	Civic Empowerment for Accountability & Good Governance Project (Uganda)
References 2	Civic Empowerment for Accountability and Good Governance Project (Uganda)
References 3	Civic engagement (Education)
References 4	Civic engagement (Education)
References 5	Civic Engagement Program Office (Universitatea de Stat din Moldova. Catedra relații internaționale)

Value of authority record: generally, it is about finding a controlled vocabulary (or standardized keywords). In the given list of terms, all are narrower terms of social justice. The instructor can engage the user in understanding the next level of narrow or broad terms, and wherein this hierarchy is inclusion and access. Specifically, it is about engaging the user to think about the correct terminology.

CIVIC ENGAGEMENT (CE) PATHFINDERS

Just as SJ, pathfinders in the area of CE, are also available on the Web. Table 5 is a sample of such titles; listed here are 8 pathfinders. The main focus of this table is to identify EDI. Using the Web Accessibility tool, column three shows the highest percentage of Diversity in these Websites is 80%. None is 100% or close. Similarly, by observation EDI compliance s three stars maximum. None gets a five-stars rating. COVID-19 related content is only in three of the eight pathfinders.

The implication of Table 5: generally, it is about finding the engagement level or involvement or participation in a community's civic activity. Specifically, it is about EDI in the design and structure of

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the We-based tool. An instructor can use this data for further evaluation or teach on similar lines. A user can decide to pick all these paths - - e.g., that have COVID-19 content - - to study how COVID-19 has an impact on civic engagement. Few of these CE pathfinders can sync with the needs of social justice - - for example, PPJIS and SCEP. Analysis of how much this sync, however, is not done here.

Table 5. Quantifying the status of EDI - evaluating (e.g., inclusion and access) CE pathfinders

Pathfinder	Scope	Web Accessibility %	Web Design EDI Compatible *	COVID Special
PPJIS	Peace	80	***	Yes
CE	Human Rights	77	***	No
SCEP	Campus	78	**	No
PGDC	Development	78	***	No
MP	Neighborhood	85	***	Yes
CEGG	Common Ground	74	**	No
RICL	Civic Life	73	***	Yes
PFTPD	Tarot	80	***	No

[Note: Titles are abbreviated, and details are not listed due to constraints. Full details are available in the Appendix at the end of the book; or ask the author].

Summary: Table 5 provides answers to understand the stated question: "Are reference tools improving in accessibility and inclusivity."
Gaps in Table 5:

● Accessibility %
● Accuracy in two contexts i.e., Web Design, and EDI Compatible
● The absence of an EDI Statement as a topic on a website is a direct answer to the question.

The data in the Table 2 & Table 5, need to be explored further to see how many pathfinders by a common criteria can be integrated n teaching and learning.

DATABASES

Q. *Are Databases and Other tools inclusive? What do studies say?*
   A.   This can be assessed in a future study. Some answers are in the following discussion.:

In Table 6 are discipline-specific Databases. Only 8 out of 16 databases are in the Table, just to demonstrate the process of evaluation by end-users. Criteria: Very useful, Somewhat useful, Not at all useful. Relevant is revisiting Bill Katz's evaluation criteria and refreshing the value of time in reference sources, a concept of SR Ranganathan's Save the time of the User. Interestingly in most of the user studies, the evaluation, of reference tools by the user is rarely found. "The perspective of the patron is conspicuously absent from the literature of reference work evaluation." (O'Kelly, 2000).

The implication of Table 6: generally, it is about finding the level of EDI in databases, e.g., inclusivity or exclusivity. Specifically, if this tabulated data comes from the end-user, it will be a resource for acquisition and marketing professionals. And, more precisely, it is about the end user's opinion of what belongs to the end user's need satisfaction.

Table 6. Discipline-specific database, end-users to complete this evaluation

Database	SJ Relevance for your needs	CE Relevance for your needs	Equity statement or policy or approach for your needs	Diversity statement or policy or approach for your needs	Inclusion statement or policy or approach for your needs	Accessibility
PAIS Index						
CIAO Columbia International Affairs Online.						
Human Trafficking						
Gender Watch						
Sociological Abstracts						
Sociological Abstracts						
Criminal Justice Database						
ATLA Religion						

A brief profile of each of the 11 databases is in Table 7. Analyzing reference sources using a criterion, Table 7 uses three tools. The first tool is Six A's, the second is EDI indicators (source: www.creativebloq.com), and the third is the LAM Scales [(Hunt, 1972), adapted]. As a sample, the first entry Education for Justice is illustrated.

SJ AND CE SUBJECT GUIDES: CROSS-INSTITUTIONAL AND CROSS-CONTINENTAL COMPARISON

Literacy tools are in many different formats. A subject Guide is pre-planned. Table 8 has a sample of Subject Guides. Each Guide may have a different name, contents, and so on. For example, two library guides have integrated SJ & CE; one has a different name; usually Guides have a name and contact of the author, but in this sample, it is not consistent. Likewise, Guides in College or University all have their date-related information style – some are at the bottom of the page and some are for each Guide on the page. Reachability is an indicator to find, can this Guide be reached at site's page number one, or two or three, or not easy to find (i.e., if not listed, needs to be searched everywhere).

Table 7 has six questions to evaluate a database. The following is a list of s**ome more databases to try the above Six Questions & 3 Scale-based indicators**

- Encyclopedia of Environmental Ethics and Philosophy.
- Consumer Action
- RHIN: Refugee Health Information Network.
- Social Psychology Network
- Social Justice Institute [SJI]
- Stanford Social Innovation Review .
- Center for the Future of Museums
- Active Collections
- Participatory Museum.

Table 7. Databases: A template or hands-on) -- six questions and 3 scale-based indicators

Critical evaluation: Critically evaluate using Six A's (Taher, 2021) + EDI indicators:	Analysis/ synthesis

● Education for Justice -- respect for the human rights of all people and respect for oneself
  1. Decryption: a project of Ignatian Solidarity Network, provides resources to those who wish to study, teach, and practice Catholic social tradition.
      ● URL: https://educationforjustice.org
  2. Equitable, i.e., meets different physical, visual, technical needs;
  3. Flexible, i.e., meet different behaviors, different devices;
  4. Tolerant, i.e., correcting errors, updated content, open for feedback
  5. Functionality, i.e., allows applying limits in searchability by relevance, e.g., topic, date, geographic location
  6. Design, i.e., accessible or self-customizable by people who have disabilities
● LAM Scales
  1. Literal (EDI expression), e.g., Yes, critically explain
  2. Anti-literal (EDI expression) e.g., No, critically explain
  3. Mysterious (EDI expression) e.g., Not clear, critically explain	

SOCIAL JUSTICE AND CIVIC ENGAGEMENT LIVING-LEARNING COMMUNITY

A question is well articulated "How does one engage in a radical pedagogical praxis when constrained by a growing awareness of the ways in which libraries and librarians are institutions of hegemonic order?' Ryan & Sloniowski, 2013). The answer is in the library's effort (for example developing subject guide) to strive beyond inclusion to engagement. Table 8 has a sample of subject guides from eight institutions. The first column includes:

- Page title (terminology varies, in the case of four); Five are universities; Only has contact info that can be reached; Four were updated in 2021

The implication of Table 8: A subject guide is first aid for the faculty, researchers, students, etc. But librarians who create this tool, and the end-users for whom it is designed, generally are not on the same page (see the American scenario, Tchangalova, & Feigley, 2008).

In short, factors assessed include a. accessibility (design); b. location, c. Representation (i.e., disciplines combined CE and SJ or not combined), d. lack of updating, and e. clear policy statement about diversity.

Table 8. A cross-institutional and cross-continental comparison of CE and SJ subject guides

	Page Title (CE, SJ / contact info. (Yes or No) / Level: College or univ. or State lib., / last updated	Accessibility (by site design)	Consistency in contents comparing CE & SJ	Selectivity for current program	Transparency or sense-making no jargon	Inclusivity of the have-nots	Easy to locate = Y/ hidden behind layer = N	Number of displayed Guides	No. of items	Diversity Policy
US	1.a Research Guides (CE) /N /C /	DK	N	DK	DK	DK	N	0	2	N
	1b. SJ /Y	DK	N	N	DK	DK	N	9	DK	N
US	2. Subjects (CE & SJ) / N / U / 2021	DK	Y	N	DK	DK	Y	2		N
US	3. Subjects (CE & SJ) / N / U / n.d.	DK	Y	DK	DK	DK	Y	3	1	N
US	4. None / (SJ & HR: CE) / N / C / n.d.	N*	Y	DK	N	N	Y	8	DK	N
AU	5. Social justice and inclusion / Y / U / 2021	y	DK	DK	DK	DK	Y	4	0	N
AU	6.Social Justice/ C/ /n.d.	"There is currently no content classified with this term."								
AU	7.Human Rights and Social Justice/ n/ u / 2021	Y	DK	N	DK	DK	Y	0	2	N
AU	8. Social Justice/ n/ u / 2021	N*	DK	N	DK	DK	Y	6	0	N
US	9. Civic/Social Literacy / n / S / n.d.	N*	N*	DK	N*	DK	N	DK	DK	N

(Y = Yes; N* = site crowded; N= not clearly stated; DK = Don't know / not specified (indicators adopted from Dunsmore, 2002; see also: Tyson, 2019)

[Note: Names/Sites are not listed due to constraints. Full details are available in the Appendix at the end of the book; or ask the author].

Overall, it is not possible to rank its excellence, given the random selection of the guides. A future study will be able to provide a clear observation about these being closer or not all close to best practices suggested by Harvard Library. (n.d.).

LITERACIES FOR TEACHING SOCIAL JUSTICE THROUGH CIVIC ENGAGEMENT

Q. *Are We Making" PROGRESS" with civic critical literacies framework to engage &/or include? Are we able to measure the levels of bias and discrimination, in-house and in the communities?*

In designing a literacy program, the objective may be a one-shot session, or in multiple sessions. Depending on the course, or the objective of this literacy activity, the organizers can use the template as given in Table 9, for assignment or workshop, or hands-on; adapted from Bondy, et al., (2015)

The literacy program overall looks for the following input, thruput, and output: Digital Age Literacy's Capability Framework (skills) (ACRL Framework for Information Literacy Advisory Board. 2017; Trembach, 2021).

Social Justice Literacy: Digital Literacy Framework (Social and Civic)

Value of Table 9: Generally, it is a useful approach and simple for the train-the-trainer program. Social justice as in the above list has many facets.

Table 9. Social justice literacy

what	How, where, when	Action Plan
Scope:	Gang Violence in the community and its influence on student life	
Facilitator:	Youth Jail Chaplains (rep intercultural, and/or interfaith reps)	
Interaction:	through a guest speaker from the community's youth center	
Collaboration:	law enforcement sector's faculty	
Reflection:	using anecdotes and narratives	
sharing of information:	handouts with case studies	
knowledge, and experiences:	YouTube-based resources for discussions	
reward students' efforts:	recognize little efforts in (e.g., preventive measures)	
focus on real-life problems:	case studies and how the law, society, and culture is at the intersection	
Hands-on assignment:	Example asking the students to write the risks of violence, and benefits of peace in gang violence (For Teaching civic engagement, youth, violence, see Metzger, 2012).	

Literacy, be it analytical, critical, or with any other approach has to follow a standard. Table 10 is an illustration of the facets that can be considered. And hence a suggestive template to develop a program with required elements for brainstorming and verbal expressions, as in Table 10. Differences in curriculum, different populations, and different instructors, etc., has to be considered in planning. This is a template to be developed by the instructor.

Table 10. Social and civic literacy: (common factors and common problems)

Differences	Social Science	Art	Science
Curriculum	Folk culture (collection development)	mobile library (Camel driven) (delivery services)	Borrowing Science fiction (rural use behavior)
Population			
Instructors			
Digital tools			

Sources:

"A set of knowledge, skills and attitudes that enable individuals to act in their immediate social environment in a critic, tolerant and democratic way, as well as to interact effectively in the public domain and to "understand and interpret different social phenomena." (Delgado-Algarra, et al., 2020; Densmore-James, 2011).

New Literacies for Infodemic vs. Pandemic vs. Pandemic or Covid-19

Value and impact of this new literacy: Literacy in the past and post-COVID-19 is distinct in many ways. For example, distancing, sanitizing, and virtual access to information and heritage resources, impacts the staff, users, and everyone in the close vicinity, virtually.

What are new literacies: "New literacies are not simply technical skills; rather, New Literacies theorists distinguish between the use of digital technologies for what they call "new technical stuff" and "new ethos stuff" (Raffaghelli, et al., 2020).

New literacies, as a topic in the context of COVID-19, and the post-Pandemic period, are gaining attention in library guides, subject guides, etc.

Thesaurus (Mapping Terminology)
- ◦ Common Sense Digital Glossary FTW. https://www.commonsense.org/

Race, Racism, Anti-Racism Literacy
- ◦ Anti-Racism Vocabulary: A Preliminary Framework For The Faceted Thesaurus (Atla.Com)
- ◦ Jim Crowe Museum of Racist Memorabilia, https://www.ferris.edu/jimcrow/

A racial literacy program can use the following frame of reference to evaluate the resources (source: https://www.racialequitytools.org): example: https:squarespace.com. Table 11 is a template to design a program or plan of action for literacy.

Table 11. Anti-racism literacy, hands-on template

- Cultural Appropriation
  - o Hands-on (e.g.,):
    - § Geographic location
      - E.g., Indigenous lands
    - § Historic period
      - E.g., Egyptian civilization
    - § Tool: Artifacts in a Museum
      - Depicting the original owners
    - § Tool: Records in an archives
    - § Tool: Images in an Art Gallery
    - § Tool: Oral history
- Cultural Racism
  - § In the society - E.g., Fair in color
  - § In the literature – e.g., English prose
  - § in the workplace - e.g., comparing work culture
- Ethnicity
  - o Those races that get a nickname e.g., those who belong to East Asia, or Africa, or North America
  - o Inclusion
  - o Exclusion by choice, exclusion by pressure, exclusion by power
- People of Color
  - o Respective geographic areas, e.g., blue eyes; brown skin
- Racial and Ethnic Identity
  - § E.g., by name, by physical features, etc.
- Structural Racialization
  - § E.g., caste as in culture, or in low or high educational or economic status
- Whiteness
- E.g., the powerful ruling class of the Middle Ages versus the ruled

---

The implication of Table 10: generally, it is about finding the level of discrimination, hate, and malice towards the other – the marginalized, vulnerable, or others. Specifically, it is about institutional or individual preparedness or readiness to deal with any voices, printed or visual, in providing a barrier-free opportunity to the have-nots. COVID-19 has intensified the digital divide. And, needs more than ever work to reduce and remove the divide.

Table 12. Proposal for a peaceful coexistence brainstorming session.

Peace literacy for a workplace brainstorming session	**Process / Method ###**	**Outcome**	**Feedback**
Step One pre-plan	Implementation	Done	Evaluation
● Task: Time, date, resource person (s); etc.			
● Approach/Focus: a. Personal; b. Communication; c. concepts; d. context; e. Problem-solving d. life skills to deal with i. situation, ii.. action; and ii. results			
● Material: PPT presentation, discussion agenda, handouts, readings			
● Discussion (talking points***)			
● Tools for hands-on. E.g., Zoom.			

COVID-19 - Racial Equity, Civic Engagement and Social Justice Resources (source: https://www.racialequitytools.org/)

- ◦ 3 Principles for an Antiracist, Equitable State Response to COVID-19 — and a Stronger Recovery www.cbpp.org
- ◦ The Ripple Effects of the Coronavirus on Immigrant Communities https://www.newyorker.com

Peace Literacy

Peace Literacy Hands-on (Large group workshop, or as an individual activity): The purpose is to facilitate the activity. One way to do so is by way of engaging the audience -- to reflect on an event or moment when they felt the comfort or experienced peace in their own life. Table 12 is a suggestion of steps in planning.

Value of Tables 12-16: Peace of mind is a great benefit. That is, the mind needs comfort and compassion. Literacy for peace and harmony is essential to create awareness and spread tolerance messages. Instructors can use these templates to educate the haves and have-nots, both need awareness to deal with the public and personal matters amicably.

Intercultural literacy is all about people from all walks of life. Under the caption 'The Seven Types of Community Capitals' culture is defined as, "The values, norms, beliefs, and traditions that people inherit from the family, school, and community. Also includes material goods produced at a specific time and place (such as paintings, books) that have historical or cultural significance" (Beaulieu, 2014, p. 5). Visualized in the examples "cultural events/festivals; musical heritage, libraries; museums; multilingual populations; historical associations." (Beaulieu, 2014, p. 5).

Table 13. Tolerance literacy (a planning template) (see also: ACRL Framework for Information Literacy Advisory Board, 2017).

Situation	Action	Results s
• Peace Literacy • Non-Violence Literacy • Civic Interfaith Literacy • Tools, e.g., Golden Rule Poster • Technique, e.g., Develop a strategy for tolerance prometon • Process, e.g., community engagement • Involve community leaders • Dialogue about common grounds • Discussion about understanding differences • Develop awareness programs (Ucko 2008; Taher, 2011).		

Tolerance they say is to be cultivated and hence needs a strategy. In Table 13, the strategy suggested is based on the Golden Rules of the moral and ethical teaching of the 13 major religions in the world.

As in Table 13, peace literacy by way of cultural and/or belief systems can be applied in promoting harmony and peace. Table 14 is a suggested guideline for peace literacy.

Table 14. Peace literacy: hands-on activity with a focus: 'check the inclusivity of web resources' - annotated template

Profile building	Resources consulted	Critical analysis of results

• Original Title of Website: Teaching Tolerance:
  § New title: Learning for Justice—Formerly Teaching Tolerance!
  § URL https://www.tolerance.org/
  § Description: offers free resources to educators who work with children from kindergarten through high school.
  § EDI Rating, Overall: (Score fully incorporates 5; partially 3; not at all 1): 3		

Evaluating Website using Six A's (Taher, 2021)		

o Authority (e. g., Owner, contributor, publisher): Southern Poverty Law Center
§ Hands-on:
• Does it have a clear objective?
  o Accuracy (e.g., credible; reliable and verifiable): (note: .org is a reliable domain, is used for organizations
§ Hands-on:
• Does it provide any links to related sites?
o Approach (e.g., objective): clear or confusing
§ Hands-on:
• Promotes public good?
o Age of the site: Current or outdated
§ Hands-on:
• Date created
o Audience Level (generic: any or specific: clients)
§ Hands-on:
• Focused by type of users (e.g., academic)?
o Accessibility (e.g., mobile-friendly) Hands-on:
  o ignores web usability approach, e.g., works only with Chrome		

Note: Website evaluation using 6As criteria, is illustrated in the first website. These 6As criteria can be used as a template in training, anyone, for example, the young, seniors, and vulnerable:

Equity Literacy, Case Studies

The concept of multicultural education began in the 1970s and continues to develop today. Its purpose is to increase educational equity for all students. Multicultural education fuses concepts from a variety of fields (i.e., ethnic studies, women's studies, etc.) with key ideas from social and behavioral sciences. (Aragona-Young, 2017).

Ali, the school librarian, said, "I would love to deliver the bags" and proceeded to explain how doing so would be a great segue into talking to families about the resources available in the school library and opening a dialogue about the child's favorite types of books. (Aragona-Young, 2017).

Intercultural/Interfaith Literacy (Equity, Diversity, and Inclusion)

Nonviolent and Peacebuilding Literacy Tool, i.e., Golden Rule (for more info, see www.cmfsrc.ca).

Golden rule Quotes. Hands-on to find the original text, and compare it with any other from the list of 13 quotes: Similarities, differences in these 13 quotes;

- Faith group name: Zoroastrianism
- Quote: Do not do unto others whatever is injurious to yourself.
- Exercise: find the source. Find resources that interpret this quote. Compare the same with any of the other Golden Rule Quotes (Scarboro Missions, August, 2007, pp. 1-5).

Readings for critical analysis:
    Luhtala & Whiting, 2018; Parrott, 2017; Buckley, 2006; Thyne, 2006; Kostenius, 2016; Allen, 1996; Armstrong et al., 2015; Marsden, 2018; Appel, 2021; Edson, 2005; Bennett, 2008. [Full details are available in the Appendix 2, at the end of the book; or ask the author].
    Value of Literacy about Life Skills: Life skills are nectary for civic engagement and social justice. Life skills, for example, respecting your neighbor, colleague, or the other (unlike themselves) in the society. Respect has to be two-sided, i.e., reciprocal. And hence, a way to promote respect is by understanding the other person who may be a stranger. And, a stranger in the neighborhood or the workplace needs respect and being treated as human first, and foremost. Table 15 is based on a cultural example of dress (headdress in particular). Such a common dress could be male or female.

Best Practices: Festival Literacy. Hindu, Muslim Jewish

[Full bibliographical details are available in the Appendix 2, at the end of the book; or ask the author].
    Library

- Celebrate Diwali Nov 14th | Waterloo Public Library
- Diwali celebrations at Wellington City Libraries – Library
- Ramadan Around the World - Burlington Public Library
- The Origins and Practices of Eid ... - Boston Public Library
- The Little Book of Jewish celebrations - Dallas Public Library

- Celebrations: our <u>Jewish</u> holidays | Grand County Library
  Museum:
- tom Dieck, M. C., Jung, T. H., & Rauschnabel, P. A. (2018).
- BRIDGMAN, R., & JAFFER, A. (2017).
- Birnbaum, A. E. (2006).
- Harris, E. (2017)..
  What Works and Works Well?
- Interfaith dialogue at peace museums in Kenya
- interfaith connections in the museum: domestic practice, display, and dialogue
- Tourism and peace in the Mediterranean Area: The Museums of Lanzarote and Lampedusa
- "Welcome to Interfaith Dialogue", the Employee of the Art Gallery
- The Library as a Campus Spiritual Space: Evidence from Student Focus Groups
- Where the private meets the public: Results of a survey of library professionals' observed student use of academic library spaces for prayer
- Zen and the Art of Dealing with the Difficult Patron

As in the case of Table 15, a cultural aspect (based on one's belief or preference) is about meals or food. Table 16 has eight different streams of world religions and their food preferences (e.g., egg allowed or not allowed). Given below the table are two resources. First (Multifaith Information Manual / omc. ca) is a handy tool that has answers to this quiz. The second is best practices from practitioners in this idea of using cultural and religious examples for peace and harmony.

Table 15. Critical peace literacy session as a life skill (template for lesson plan or workshop)

Situation	Concerns / issues	Background	Action / results
Question (Needs assessment)	E.g., Why Muslim females and Christian Nuns wear a head covering	Dress: Cultural, religious, social?	Hands-on: identify access, evaluate, apply the information to everyday needs.
Resources required	What: Conceptual clarification	What: men's headwear: e.g., Muslim, Sikh, Priest in Christian and Jewish	
Findability	Where: information everywhere	Types of sources	
Discover	How: free or fee. Open wall or closed	Accessibility	
Assess: Analyze (if matches the need.)	When: The need with the findings.	Inclusive or exclusive	
Evaluate	How: Use 6 A's	Authority, Accuracy, Approach, Age of the site, Audience Level, Accessibility	
Test	Why: (assess) the findings with another comparable resource	Like and unlike: Need to know the applications	
Empower	Watch, audit, and quiz	Sustaining the learning	

Table 16. A quiz about food -- religious/cultural accommodation at the workplace

Faith group's food or diet preferences	Pork		Egg		Halal		Kosher	
	yes	no	yes	no	Yes	No	Yes	No
Anglican								
Sikhism								
Hinduism								
Buddhism								
Jainism								
Islam								
Jewish								
Rastafarian								

Resources for Answers:
- ◦ Canadian Multifaith Federation. (2017). Multifaith Information Manual. omc.ca
- ◦ Using food as an example in learning in SJ & CE's integrated environment (Delgado, 2015)
- ◦ Lenstra, N., & D'Arpa, C. (2019). Food Justice in the Public Library: Information, Resources, and Meals.

Best Practices:
- ◦ Ngian, L. C. (2017). Role of Libraries in Strengthening Tolerant and Inclusive Societies.
- ◦ Clarke, L. W. (2020). Walk a Day in My Shoes: Cultivating Cross-Cultural Understanding Through Digital Literacy. *The Reading Teacher*, *73*(5), 662-665. https://ila.onlinelibrary.wiley.com/doi/abs/10.1002/trtr.1890
- ◦ Sherwin, L. (2017). Interfaith Leadership and How it Relates to Social Justice.
- ◦ Romain, Joseph, Taher, Mohamed. (2006). Managing Religious Diversity in the Library. Presented at the Ontario Library Association's Super Conference 2006, February 3. https://multifaith.blogspot.com/2006/04/managing-religious-diversity-in.html
- ◦ Taher, M., (2011). Interfaith Literacy Resources in the Index Islamicus: A Bibliometric Analysis. https://myrepositori.pnm.gov.my
- ◦ More sources (UNICEF, 2008; Sahin, 2017; Sari & Haryanti, 2017; Arvanitakis, 2019).

Fake Media Literacy: Fact-Checking Resources

Questions for Reflection or Assignment

- Does media literacy help identification of fake news? Information literacy helps, but other literacies don't. (Jones-Jang, S. M., Mortensen, T., & Liu, J. (2021). American Behavioral Scientist, 65(2), 371-388).
- Why do you think some people share fake news stories?
- What is the potential problem with fake news and not being able to tell what is fake?

Mental detector (Information adapted from IFLA's "How to Spot Fake News" infographic). Table 17 is a list of sources to consult or approaches to verify fake words that get circulated via social media.

Table 17. Verifying fake news (six A's checklist, Taher, 2021)

Fake news	Strategy to track the steps	Strategy to be empowered
● Consider the source, click away from the story to investigate	●	●
o Who Is the owner, author, creator? Google: Author	o	o
§ Evidence, if any, e.g., links on the site? Click on those links.	§	§
§ Close your inner eyes, and think twice: is it a joke? it might be so.	§	§
§ When in doubt: ask a librarian	§	§
§ Check your own biases, consider if your own beliefs could affect your judgment.	§	§

Fake news literacy can be one-shot instruction or offered in a multi-session. The framework:

- First, define a task for how to search digital tools that carry news, e.g., in social media
- Second, with hands-on training, second, get to know where to locate other sources
- Third, how to technologically use and evaluate information as per end-user needs,
- Fourth, how to synthesize, organize, present to meet the demands, and
- Fifth, practice the different ways of synchronizing using appropriate apps and devices

The implication of Table 17: Training the netizen to search, discover, evaluate, synthesize, and be empowered to engage others in everyday life.

- (see also: Mathson, S. M., & Lorenzen, M. G. (2008). We won't be fooled again: Teaching critical thinking via evaluation of hoax and historical revisionist websites in a library credit course)

Thesaurus (Mapping Terminology)

§ Misinformation Lexicon. https://library.louisville.edu

In addition, there are templates for literacy sessions in Anti-Racism Literacy in Table 5; Checking the Inclusivity of Web Resources - Annotated Template (Table 6); Intercultural/interfaith (Table 7); A template to engage with a Quiz about food choices by faith groups (Table 8)' Evaluating Reference sources (print and digital) (Table 9) - - it has ten criteria to assess (e.g., Accessibility, Accuracy and EDI compliance, etc.).

Long Live Reference Work with Bill Katz at the Virtual Desk; and S R Ranganathan's Save the Time of the Digizens

Just as in Table 6, here again in Table 18 is an idea that there is a long thread in the history of the help-ing profession. Reference service from 1876 to date is about finding information and facilitating access. Bill Katz's and Ranganathan's ideas continue to re-enforce that concept, even in virtual domains. Table 18 is an adapted idea framework of Katz and Ranganathan. Table 18 has Ranganathan's five categories, viz. PMEST. Table 18 in two parts, manifests these five categories.

Table 18a. Evaluating reference sources, a qualitative approach (print/digital) (Adkins, & Erdelez 2006). Template Part 1

Authority: Name / Publisher Website	Accessibility: by Format Printed / e-book / online access / (if e-product, Web site compliance for accessibility: Comp. Yes, Comp. NO	Approach: Subject / Arrangement	Unique feature / Comparability related sources	The usefulness of the source: Quick reference or long-range?
Multifaith Information Manual / omc.ca	Printed	Social Science / by a faith-based organization	Authorized by faith-groups / comp: **A World Religions Resource Guide** (source: Multifaith Library & worldcat.org)	Quick
Aboriginal Studies	Digital	***	**American Indians**	***
LibCal	Digital	$$$	LibAnswers	$$$

Table 18b. Template part 2

Authority: Name / Publisher Website	Audience level/ approach / appropriate for students, Practitioners, anyone	Major Focus. CE: Full, Partial, None; SJ: Full, Partial, None	Accuracy: D / E / I / compliance: Full, Partial, DK = don't know	Age: Date published	Frequency of updates, if applies
Multifaith Information Manual / omc.ca	students, Practitioners	CE: Partial & SJ: Partial	Full	2017, 6th ed.	Once in five years, approx.
Aboriginal Studies	*** [Applied Tests: 5 barriers found on the web page -- Total: 78 Fail: 5 Verify: 0 Pass: 73]	***	***	***	***
LibCal	$$$ [Applied Tests: 1 barriers found on the web page -- Total: 288 Fail: 1 Verify: 0 Pass: 287]	$$$	$$$	$$$	$$$

List for Hands-on Training [accessibility tester: http://checkers.eiii.eu/]:

*** source for details: The WWW Virtual Library http://www.vlib.org/Peoples

$$$ source for details: Juda, A. (2021). A Year of Virtual Reference: What we Learned. https://digitalcommons.ithaca.edu/cgi/viewcontent.cgi?article=1004&context=library_pres

Research, education, and practice need to be intensified. Hence to facilitate this activity, a theme-based bibliography is compiled. The integration of SJ & CE in academia must also be considered by LAM's thought leadership.

The implication of Table 19: For practitioners, it helps visualize the true colors. For faculty and decision-makers, it helps in moving further, beyond tokenism.

Table 19. Diversity, social justice, and civic engagement in LAM: A thematic bibliography

	Context	Connection	Infostructure	Genre
Alemanne, N. D., Drouillard, C., & Ren, X. (2019	Curriculum	Research	LIS	Conference Poster
Capadisli, S. (2020). Linked research on the decentralised Web.	Archivability	Research communication	Semantic structure & researchers	Doctor of Philosophy dissertation
Carlton, P. (2016).	Troublesome times, reflections	Theory	Archival Studies	Doctor of Philosophy dissertation
Chou, R. L., Pho, A., & Roh, C. (2018).	Marginalized	Research	LIS	Non-Peer Reviewed Publication
Kung, J. Y., Fraser, K. L., & Winn, D. (2020)..	In-House Diversity & Inclusion	Practice	Library, Academic	**Refereed** *journal article*
Delgado, M. (2015). .	CE & SJ	Practice	*service-learning*	Peer-reviewed publication
Diversity Working Group. (2019).	Racism demystified	Education	GLAM	Peer-reviewed journal article
Francke, H., Lenstra, N., Vårheim, A. & Skare, R. (2018)..	Assessing EDI	Research	Library, Public	Conference presentation
Matthew, P. A. (Ed.). (2016).	Tenure demystified	Practice	Library, Academic	Peer-reviewed publication
Mitchell, T. D., & Soria, K. M. (2017).	CE & SJ	Practice	Curriculum Studies	Peer-reviewed publication
Ndumu, A., & Betts-Green, C. (2018).	Corporate Websites	Education	LIS	Peer-reviewed journal article
Ndumu, A., & Walker, S. (2021).	Assessing EDI	Research	LIS	Peer-reviewed journal article
Ng, W., Ware, S. M., & Greenberg, A. (2017).	EDI Action Plan	Theory	Museology	Peer-reviewed journal article
Pio, E., & Syed, J. (2020).	Diversity Statements	Theory	Archival Studies	Peer-reviewed journal article
Ramos, A. F. (2020).	Assessing EDI	Education	LIS	Peer-reviewed journal article
Roberts, S. T., & Noble, S. U. (2016).	Blind spots	Education	LIS	Peer-reviewed journal article
Tamashiro, R., & Furnari, E. (2015).	Public Good	Theory	Museology	Peer-reviewed journal article
Villagran, M. A., & Hawamdeh, S. (2020).	Competencies qualitative perspectives	Research	LIS	Peer-reviewed journal article

[Note: These publications are identified from open-source tools, such as Google scholar. The titles and details of publications are not listed due to constraints. Full details are available in the Appendix 2, at the end of the book; or ask the author].

Research, education, and practice need to be intensified. Hence to facilitate this activity, a theme-based bibliography is compiled. The integration of SJ & CE in academia must also be considered by LAM's thought leadership.

The implication of Table 19: For practitioners, it helps visualize the true colors. For faculty and decision-makers, it helps in moving further, beyond tokenism.

In Table 19, has 19 publications; two publications have combined SJ & CE, most are published I peer review journals; two each relate to museums and archives; 8 relate to library, and so on.

Scholarly Contributions in Social Justice and Civic Engagement

The list of top-cited SJ Authors includes PT Jaeger, NG Taylor, U Gorham, NA Cooke, ME Sweeney, SU Noble, J Koepfle, etc. In a future study, these collaborative works can be textually analyzed, for data mining, with tools such as "Text Easability Assessor". Here is an analysis of Prof. Bharat Mehra's works, (Mehra, 2021) mapped using Dr. S R Ranganathan's PMEST, a tool for facet analysis. (PMEST = Personality, Matter, Energy, Space, and Time).

Table 20 presents just a sample of the variables in mapping the author's productivity – collaboration, subject of the article, conceptual framework contextual frame of reference, the geographical and spatial focus, etc. Within this data self-published is 113 and collaboratively published is 134; overall collaboration is highest in the interdisciplinary area by subjects and most concentration is in the research activity. In terms of the ranking of authors, each author can be compared. But some authors have not listed themselves in Google Scholar. Hence the ranks are on their merit and not in a comparable sense.

Table 20. Scholarly productivity pattern of Dr. Bharat Mehra, 2016-2021 (A template for all Top Cited SJ Authors)

Personality I	Personality II	Personality III	Matter I Subject wise		Matter II Conceptual framework			Energy I	Total
Author wise	**Rural Libs**	**Public Libs**	**Discipline**	**Inter-discipline**	**Research**	**Theory**	**Practice**	**Digital divide**	
Solo	4	1	19	15	15	8	8		70
Two authors	3	3	7	8	5	6	4		36
Three authors	6	5	2	16	12	2	4	1	48
More than three authors	1	1	1	1	2	1		2	9

DISCUSSION

This chapter aimed to find answers to the following questions. What approaches are available have been answered under each of the following categories in the chapter. For example, Tools & Guides; etc.

This chapter has identified, listed, described, and profiled 17 SJ & CE Pathfinders (Table 2 & 5).

This study can be replicated using the major Web-scale discovery tools, viz, WorldCat Local, Summon, EBSCO Discovery Service, and Primo; or any other similar paths. Alternatively, one can also replicate this in the other sources (other than web-scale tools), such as Library, Information Science & Technology Abstracts (EBSCO), ArticleFirst (OCLC) FirstSearch (OCLC), Ulrich's Periodicals Directory View More Results, etc.

As part of testing disability assessment, the web-based tools used are Contrast Checker (webaim.org/resources/contrastchecker), and accessibility tracker (webaccessibility.com). While this is explored in the case of SJ Pathfinders, for the others, for example, journals and other web accessibility tests are not performed here due to a lack of time and resources.

Research question two is about virtual tools fostering empathy (Greer, et al. 2017; Charatan, 2019); even if it is a machine or robotic ethics (Cappuccio, et al. 2021). Research Question three relates to engaged metadata, are well studied and evidence is in the published literature (Howell, 2017; Tortosa, 2018; Howarth, 2005; Woolcott, et al. 2021). The gaps identified in Tables (1 - 5), and the cited work as evidence, go to prove that there is a soul-mate relationship between metadata and the bibliographic control approach. For example, the gaps identified in Tables (1 - 5), and the above-quoted evidence, go to prove to Research question three, that there is a gap in capturing digital objects (data, facts, figures, multimedia, etc.). The fourth research question, calling for the human touch in Websites, and digital objects, calls for removing any barriers. This gap has to be removed for improving the discoverability, enhancing accessibility and inclusivity for the haves and have-nots (in Tables 1-5) (Simon, et al., 2021; Barr, 2021; IFSI Stability Report 2013; Europeana; Merendino, & Meadows, 2021; Chain, 2020; Lam, 2021; Tang, et al. 2018).

Identified and profiled are 17 SJ & CE journals. These are evaluated manually using 8 indicators, such as the composition of its board of governance, its peer reviewers, the advisory board has a good representation of diversity, such as inclusive of a team i.e., multicultural, multidisciplinary, and multi-national.

A profile of 16 databases is created. The profile is in the form of a blank template for the end-users to be engaged in learning about these and then evaluate the same.

To find an answer for the lessons learned and models that are emerging in respective types of literacies (e.g., Civic, Data, Anti-racism, Peace, Intercultural/interfaith, Fake media, etc.), a list of readings are provided about Theory, Practice, and Education.

Table 21. Scholarly Productivity Pattern, 2016-2021

Personality Author wise	Energy IV Context wise							Space	Time	Total
	Racism	LGBTQ+	LIS Edu.	Diversity Equity	Inclusion	Social Justice	Civic Engagement	US & Global	21st cent.	
Solo	6	3	5	3	4	10		8	4	43
Two authors	2	1		1		3	4	6	1	18
Three authors		3	1	1	1	2		5		12
More than three authors			1	1		1	2	6		11

Table 22. Summary of profile of paths

	Pathfinder (Table 2)	Quality of Journal's Website (Table 4)	Quality of Databases (Table 6)	Quality of Subject Guides (Table 8)
To find credible info about	Accessibility % ratio	Accessibility of print and e-formats (Table 4)	Accessibility end user's response (Table 6)	Accessibility by the design (Table 9)
Audience: WWW, social and civic need satisfaction	Approach or coverage)	Board's Diversity (Table 3 & 4)	Equity statement or policy(	Accessibility Life skill: End user's response
Integration: Integrated structure and design of webflow	Up to date content? Physical test for the timeliness	Fee-based or free for the reader (Table 3 & 4)	Accessibility via Mobile end user's response (Table 6)	SJ & CE integrated
User engagement: Yes / No	Allows user comment	No fee to author or reader (Table 3 & 4)	Relevant to user needs	Proactive for the current program
Outcome dissemination; reciprocal, Topical coverage, attempt to provide reliable info	COVID info upfront	COVID info upfront	Diversity statement or policy or	Transparency & / or comprehensive
D or E or I	Accommodates	Intersectionality	End-user's response	Reachability

The needle of EDI has been pointing at a mix of presence and absence of the core factors in the reference tools.

CONCLUSION

The approach of identifying tools and assessing with EDI lenses (1) provides a wide range of indicators; (2) demonstrates the current state of the art; (3) the outcome of assessments are comparable in similar perspectives; and (4) can be replicated in more specific areas.

The questions that are answered here are:

- What tools (digital, online) are helpful to engage (EDI)
- Where to find such tools for developing new literacies, for an integrated SJ & CE context
- And, how to evaluate such e-resources for EDI compliance.

In short, this chapter has attempted to improve the strategy to view the paths with an EDI worldview. For example, this is obvious in identifying major discovery paths; initiating a set of measures to assess the content and context with an EDI lens; critically analyze dozens of paths; in each case, a different tool or criteria was used to evaluate the EDI webflows; and thereby provided a base to start a new way of looking at paths. It has many recommendations, and hopefully thought leaders will reflect on these!!!

Future research is also required of the diversity and inclusiveness in reference tools meant for ach type of use, user and interest, i.e., students, faculty, research, etc. So also, for multiple areas of social justice that connect to different types of civic engagement. (Richards-Schuster et al., 2019).

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KEY TERMS AND DEFINITIONS

Accessibility: In general, it is about approachability. In particular in the context of the web developments (World Wide Web Consortium), it relates to the standards for making it inclusive, equitable for all; thereby removing the barriers, and ABIDE being exclusive to the haves.

Digital Literacy (i.e., Digitized World): Supplements and complements information literacy.

Discoverability: Facilitating online search for semantic content. Can be a synonym of findability and searchability. "'Discoverability' is the quality of being readily found by information seekers actively engaged in the search process" (Bui, 2012).

Engaged Communities: Engaged to understand 'the other' in the community, as well as in the workplace; or participate equitably in civic, cultural, and social development. "Dissemination activities can play an important role in encouraging users' active participation, while the absence of dissemination activities can further increase participation inequality" (Yuan, & Recker, 2014).

Evaluation of Web-Based Digital Contents: Visualizing, assessing by a set criterion and documenting the strength or weakness.

Inclusive: A barrier free access, or a process or strategy that reduces exclusion in digital or physical world: "We are continuing to add more resources ... needing support are included as well, should you be so moved." Social Justice Resources: becketathenaeum.org. "Authentically bringing traditionally excluded individuals and/or groups into processes, activities, and decision/policy making in a way that shares power" (Jeffries, 2018).

Information Literacy: Empowering a netizen to become aware of when, why, and how to find the right information that is Information literacy for everyday needs looks for survival information. It is not the same as academic needs or workplace literacy. As against information literacy in the workplace.

Injustice: Inequality, or discrimination; "The American Alliance of Museums completed a national report in 2017 … a complete lack of diversity as being a top issue within the museum sector" (Jeffries, 2018).

Pathfinders: To facilitate access via a suitable resource discovery tool. It is about a tool that has organized knowledge and capability to disseminate and engage. It prepares the user to avoid being lost in a maze.

Social Exclusion: Excluded by the society. "The process of being shut out, fully or partially, from any of the political, social, cultural or economic systems, which determine the social integration of a person in society" (Vincent, 2004).

APPENDIX

OPAC's Accessibility: Is Everyone Being Served?

Table 23. Worksheet template (the student or user may be trained to fill all the blanks)

	One-search Catalog	OPAC Accessibility, literal	OPAC Accessibility, anti-literal	OPAC Accessibility, mysterious	Catalog Vendor	Equitable	Flexible	Tolerant	Reception
1. National Museums Scotland Library Services									
2. Library and Archives Canada									
3. National Library of Czech									
4. Colombo NATIONAL MUSEUM LIBRARY									
5. National Museum Library, India									
6. Estonian National Museum Library									
7. National Archives Museum | National Archives Museum									
8. National Library Archives Museum Uk									
9. Art Library Consortium, Japan									
10. National Corvette Museum Library & Archives									

Scale Legend A: LAM Scales [(Hunt, 1972), adapted] Literal (EDI expression), anti-literal (EDI expression) mysterious (EDI expression).

Scale Legend B: To assess the EDI, here are three Indicators (as a sample): Equitable, i.e., meets different physical, visual, technical needs; Flexible, i.e., meets different behaviors, different devices; Tolerant, i.e., correcting errors, updated content, open for feedback (source: www.creativebloq.com)

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Table 24. Learning social justice through community engagement (to evaluate resources)

Digital Age Literacy's Capability Framework	Life Skills	Social inclusion	Civic Engagement	Intercultural / Interfaith Tolerance	Social Empathy	Peace and harmony
1) Access (digital-born vs. non-digital born), (start a discussion)						
a) Wi-Fi; connectivity, safe, secure, privacy, and http or https?						
2) Manage (knowledge competency),						
a) The tools and search strategy						
3) Integrate (customize),						
a) with need, synchronize with the time and space: be self-conscious and alert						
4) Evaluate, critically Authority, Accuracy, Approach, Age online, Audience level and Accessibility,						
5) Empower unmask the hate crime, violence, extremism, assessment skills						
6) Consciously participate (adapted from The Impact of the Digital Society on Police Recruit Training in Canada, 14).						

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Section 2

LAM in the Community: Weaving Inclusive Participation in Practice

Chapter 3

Social Justice as It Evolves in the LAM Sector:
A Content Analysis and Avenues for Future Research

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ABSTRACT

This chapter intends to explore the history of social justice in libraries, archives, and museums (LAM) in general and social inclusion in particular. The value of this chapter is in the identified indicators, also known as characteristics (e.g., title words and its relation to citation behavior) in the current literature. A profile of over 500 articles, from 2001 to 2021, is analyzed. Journal articles from 2016 to 2021 are used to test three hypotheses. The findings of this study facilitate in understanding the emerging themes and interdisciplinary areas in the field of social justice.

BACKGROUND

The idea of convergence of LAM's is not very old; it is rather less than two decades old. The same applies to the interest in going out in the community space. "The last two decades have seen concerns for equality, diversity, social justice, and human rights move from the margins of museum thinking and practice to the core" (Sandell & Nightingale, 2012, p. 344). Museums, libraries, and archives are all now getting into activism, outreach, and community spaces (Punzalan & Caswell, 2016; Stauffer, 2021).

This chapter draws insights from the field about the internal and external approaches towards inclusion. Activism (towards inclusion) has been a debatable point in LAM's recent history. External attempts, for example, to reach was on one side: "Only a decade ago, the notion that museums, galleries, and heritage organizations might engage in the activist practice, with explicit intent to act upon inequalities, injustices, and environmental crises, was met with skepticism and often derision" (Hollows, 2019, p.1-8). Internal

attempt to be all-inclusive is an ideal yet to be achieved in collections, in staff's hiring and sustaining, and in many more contexts. "There is a need to evaluate the internal practices within the museum field before social justice can be properly addressed externally" (Filo, 2017).

Facilitating social inclusion, or reducing exclusion, needs to be demystified to bring out the fact that inclusion is a two-sided narrative. On one side is the community (i.e., external or about them), and on the other side is the in-house narrative: a subject that is mostly ignored. The purpose is to trace the common threads in the emergence of the LAM. The questions included are: What are the best practices/case studies for inclusion and engagement? and, what are the best measures to evaluate performance in Civic Engagement (CE) or Social Justice (SJ)?

METHOD

This chapter will review the literature to trace the beginnings of social justice in the information service providing sector – e.g., library, archive, museum, community centers, etc. The questions that matter in this tracing are: what is the relevance of social justice in LAM? how are the practice and training? And what are the future trends? The focus is on equity, diversity, and inclusion. For example, how is equity in hiring and collection development? How is professional education interested and or involved in social empathy?

History of Civic Engagement, Social Justice, Technological and Social Turn in LAM

Going by a LAM's survey conducted in 2018-2019, it is obvious that the evolution that had started in the 19th century is moving forward, in many small and big ways. The LAM's survey shows some clarity in terms of The Technological and Social Turn in Norway, Sweden, Denmark, and Hungary (Audunson, et al., 2020).

How well can one articulate the concept of civic engagement and the role of museums and libraries in the 1880s? It is not just roles to engage the external community, rather it is also to engage internally. G. Brown Goode, Assistant Secretary of the Smithsonian Institution in Charge of the National Museum in "A paper read before the American Historical Association", in Washington DC., December 26-28, 1888, states: "The true significance of the word museum may perhaps be brought to our apprehension by an allusion to the ages which preceded its origin … The history of museum and library run in parallel lines" (p. 497- 498).

Goode adds further details as to what it entails:

I hope that the time will come when every town shall have both its public museum and its public library, each with a staff of competent men, mutually helpful, and contributing largely to the intellectual life of the community. The museums of the future in this democratic land should be adapted to the needs of the mechanic, the factory operator, the day-laborer, the salesman, and the clerk, as much as those of the professional man and the man of the leisure. It is proper that there be laboratories and professional libraries for the development of experts who are to organize, arrange and explain the museums (p. 507).

Developments

How well are the community and the heritage institution evolving? This is well articulated by Cordes (2015, p. 1):

The relationship between museums and communities is an ever-evolving one. From the 18th century when museums demonstrated a rulers' superiority over his people, through to museums as a means of controlling the behavior of the populous, to the focus on community engagement that we see today… Collaboration between communities and Museums is a trend that we have seen only relatively recently, but the benefits of this for both parties are obvious.

Kranich (2012, p. 75) has documented civic initiatives underway in school, academic, public, and special libraries over the last decade and has found it useful to group them into the following seven distinct categories: The Library as Civic Space; The Library as Enabler of Civic Literacy; Library as Public Forum and Conversation Catalyst; The Library as Civic Information Center, The Library as Community-Wide Reading Club; The Library as Partner in Public Service: and The Library as Service-Learning Center.

More trends in librarianship have been analyzed by Jaeger, Shilton, and Koepfler (2016). The authors discuss the social position, social roles, and responsibilities of cultural heritage institutions:

…the future of cultural heritage institutions—public, academic, school, and special libraries; archives; and museums—may hinge on becoming engaged, accessible community centers. The social roles and responsibilities of these institutions—especially public libraries—have expanded greatly, with libraries now serving as sites for free public Internet access, digital literacy and digital inclusion classes, gateways to education and employment as well as social services and e-government, and even emergency response roles (p. 1).

Flinn (2011) brings forth a detailed discussion about archives and the issues is dealt with. He traces the problems with the name archive, community archive, and community-led archives, both in theory and practice. This discussion has examples of applications that range from East to West, such as the case of Morocco, Bengalis in London, etc., And states:

The desire to collect and preserve the historical materials which underpin a narrative that seeks to overcome exclusions and silences in other dominant accounts, and then to create a space to allow people to explore and better understand the past in ways that might encourage a greater sense of belonging and identification is a very common motivation behind the decision to constitute an independent or community heritage initiative in both the UK and the US (p. 1-10).

Advocacy in the Community

Civic engagement of museums and getting the society's interest in museums has been a dream of many. Hence the quote by Dana (2004): "A great department store… is more like a good museum of art than any of the museums we have yet established" (p. 1).

Scotto (2014) examines the existing programs that relate to anti-bullying and provides

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… best practice recommendations for a museum to develop and transform into an effective tool and successful partner for schools in their anti-bullying campaigns. Anti-bullying programs emphasize the positive role that museums can play within a community as museums already seek to create safe learning environments for the benefit of children's education and development into caring citizens (p.1-15).

Indicators of Inclusion

What works and works well in using the indicators, a case of the library is well discussed by Gauthier, Proulx, Martel, & Brochu (2019). A book, titled "From social inclusion to community cohesion," by Pateman and Vincent (2016) is again a discussion about applications in the library field. Can the same or an adaptation be applied? An answer needs to be found by approaching the authors of the Social Inclusion Audit and Toolkit (World Bank, n.d.).

In terms of the details of how inclusivity as a planned initiative is introduced in the Museum, e.g., TWAM – Tyne and Wear Archives and Museums, it "Over this period, the discourse of inclusivity manifested in the museum through several developments," and included, "Audience Development, … access… Education, … Exhibitions … The People's Gallery", etc. (Morse, 2014). The sub-title (Museums and Community Engagement: The Politics of Practice within Museum Organizations) of this thesis, hints that the initiative and attempt to be inclusive is not a bed of roses. The block in LIS (Library and Information Science) seems to be harder as described by Alabi (2018). "Despite the presence of programs such as ALA's Spectrum Scholarship and the ARL Initiative to Recruit a Diverse Workforce, library, and information science (LIS) has not been successful in increasing the number of racial/ethnic minorities in the profession, especially in academic libraries" (p. 132).

How similar or different is the archival world? "Despite sustained calls for a critical review of harmful content within archival descriptive records, there remains much to be explored by way of implications for Canadian academic archives" (Robichaud, 2021, p. 1). The author addresses the absence of Canadian archival practitioners by exploring how the staff is "working to integrate equity and reconciliation-informed thinking into the department's archival practice by revising their approach to language in archival descriptions" (p.1).

Yasenovska and Zinenko (2020), describe the best practices that make a museum a living organism:

Inclusion is a process of full integration of any person, ensuring possibilities of equal participation in social life. Criteria for inclusion are participation, accessibility, enhancing capacities, and ensuring sustainable development. A contemporary museum needs to become a forum where any person can get an experience of communicating in a respectful and diverse environment" (p. 1).

Social Inclusion Case Studies

The following are some significant samples. Each case is set in its local environment.

Australia and New Zealand: "Focusing on the interpretation of museum collections within converged institutions, I combine conceptual analysis of the epistemological implications of convergence with five detailed case studies of converged organizations in Australia and New Zealand" (Robinson, 2015).

Examining Museum Visits as Literacy Events: the role of mediators" describes "literacy as a social practice, the perspective of New Literacy Studies (NLS), that offers a fruitful way for museums to con-

sider the interactions between exhibition texts and their audiences" (Yasukawa, Widin, Smith, Aubusson, Rivera, Van Tiel, & Whitty, 2013, p. 1).

India: "Community engagement in rural libraries receives little focus and is an overlooked area of research." (Singh, Mehra, & Sikes, 2021).

Egypt: "Museum carries a great responsibility for the local community creating a long-term vision for its upcoming generations throughout considering these issues (inter-generational equity or intertemporal distributive justice). Consequently, it has been indicated that the museum faces two obstacles: firstly, to reach various target groups of audience and secondly, to reflect the demographical harmony "social cohesion" of the contemporary community." (Amer, p. 1-8).

Ukraine: In the Ukrainian case during the Pandemic, the situation is best described as:

Inclusion is a process of full integration of any person, ensuring possibilities of equal participation in social life. Criteria for inclusion are participation, accessibility, enhancing capacities, and ensuring sustainable development. A contemporary museum needs to become a forum where any person can get an experience of communicating in a respectful and diverse environment. (Yasenovska & Zinenko, 2020, p. 1-10).

Anzio, Italy – The Volsci Experience: "The students developed a program of interpretation activities and presented these at the park on 6 April 2018. The project focused on the war between the Volsci and the Romans around 600BC, which is the subject of Shakespeare's play Coriolanus" (APICIO, 2018, p. 29)

UK: "Because diversity is a mobile concept, intended to be applicable across all types of public institutions, the thesis examines a range of different types of archives and museums in London through interviews, participant observation, and workshops with practitioners" (Lee-Crossett, 2020).

In becoming an advocate of social justice, there are many questions. One such is "can a museum step over the line to become overly responsive, and turn into something it is not – a social service provider?" Ocello (2012) presents several case studies from the US, and Europe and illustrates, with a positive answer that challenges can be converted to opportunities.

In tracing the history of archives' role in civic engagement and social justice "Promoting Inclusivity in the Archive: A literature review reassessing tradition through theory and practice" Wetli (2019, p. 1-8) draws many significant factors in the evolutionary process.

Maack (1996) traces activism in developing reading habits. "To understand the role of voluntary associations in the modern French literacy movement, it is important to put such action in the context of previous traditions of private sector support for reading and libraries".

At the Queens Borough Public Library's Adult Literacy Programs, we long for simple answers. How many students do we serve? What kind of services do we offer? Are we a library or a literacy program? … We are both, as most library literacy programs are. That often requires explanations. ... The level of service we provide is often more intimate and intensive than the service provided to the average user. (Drobner, 2001, p. 39).

Measures, Assessments, and Metrics

"Civic Engagement from a Communication Infrastructure Perspective" provides an approach to assess the outcome of using storytelling as a method for inclusion and engagement. (Kim & Ball-Rokeach, 2006).

Is there a way to differentiate old roles, against new roles – with changing needs of society? A response to this is provided by Audunson, et al., (2020) through examples of old roles of LAM: "The library provides people with the information they need in their everyday lives… Archives support research. The museum collects, documents, and preserves the cultural heritage/natural history" (p. 165).

Audunson et al., (2020) add, "the following statements elicited the new socio-political and meeting place-roles:

- The library promotes integration and social cohesion by being a meeting place across ethnic and cultural belongings.
- Archives promote transparency, making it possible for media and citizens to obtain information about the activities of public bodies and institutions.
- The museum's exhibitions and mediation promote democracy by giving the users access to knowledge and information they need to be active citizens." (p. 165)

SIn short, the difference between the old and new roles is not just a matter on paper.

Covid-19

In the context of COVID-19's challenges faced in the evolutionary process of engagement, raise many questions. Answers to such questions will appear, and it is a matter of time. Nevertheless, one can find interesting references in the literature. A proposal by a librarian for a human-centered design that meets the emerging needs of the post-pandemic era (Romero, n.d), Library Instruction Course for Faculty (Zerr, 2021), how evidence-based intra-cultural learning promotes intercultural communicative competence (Ismailov, 2021), and transforming a university library into a learning organization (Thorpe, 2021).

Collaboration

A major question is about what or how LAM's engage with the community, and vice versa: collaborate or pattern or cooperate? This is well researched, in many published sources. The difficulty in finding is the lack of uniform terminology. A starter would be interested in this outreach or activism in libraries' inclusion (by Jaeger, et al., (2014); in 8 LAM's a comparison in public spaces (by Audunson, et al., 2020); in overview (by Cnaan & Park, 2016); and a very detailed review of community collaboration.

Reciprocity of what is done by LAM and community is a subject that looks for more research. What LAM's do is obvious in the above-cited works. In addition, according to Parrish & Taylor (2017): "Cultural Institutions as Locations for Social Justice Learning," is the story of what LAM's do. The other side of the story traced so far is comparatively short, and hence will be a future project to pursue (Currie & Correa, 2021).

Do museums foster innovation through engagement with the cultural and creative industries? This question is discussed based on evidence (Nogare & Murzyn-Kupisz, 2021). In terms of national strategy, "Australian University Museums and Collections interfacing with COVID-19" (Simpson, 2021) presents

new insights; about museums by Edenheiser (n.d.), about digital literacy approaches by Rodak, & Hanson (2021), to combine digital teaching tools is a suggestion by Rodak & Hanson (2021), Documenting a Pandemic: COVID-19 Community History by Smith (n.d.), the role of libraries in *Information Disorder by* Cooper (2021), and an investigation during the COVID-19 pandemic about the role of the Museums by Zbuchea, Romanelli & Bira (2021).

Smart City

Smart cities will need more from LAM to align their intention and extension. And hence the observation is befitting "Truly effective smart city initiatives will align citizens' interests and aspirations with the available technology investments that can achieve those outcomes," (American Library Association, 2018).

The data for this survey is collected from multiple resources. And, the list of sources includes commercial databases, Google Scholar, published bibliographies (Smith, n.d.). This mapping aims to identify trends in publications, namely, subject, authors, collaboration, and the emerging areas for further analysis. The following is an attempt to map four main characteristics (author, subject terms/phrase in title, and collaboration) of the literature. The method of analysis is quantitative or bibliometric – using descriptive and evaluative approaches.

Any publication will have different types of authors, such as personal, corporate, anonymous, collaborative, etc. Table 1 has a sample of two types, i.e., personal, and corporate authorship. In a world that is anxious to take up social inclusion, one may have questions about the content, context, communication, and message in these publications.

Table 1. Authorship compared 2001-2021

Individual engagement		Institutional engagement	
Individual authorship	%	Corporate (or institutional) Author	%
509	94.5	32	5.5

To proceed in this direction of inquiry of authorships, Table 2 identifies types of personal authors, and Table 3 lists the corporate author types. This data is from the years 2001 to 2021. Table 2 has three types of personal authors. In this case of solo authors (i.e., 51.5%) dominating the scene calls for some evidence as to which type of professionals are on the top of the list.

Table 2. Authorship metrics relating to authors in an individual capacity, 2001-2021

Individual Engagement Pattern					
One Author (solo)	%	Two Authors (as co-authors)	%	Three or more authors(co-authors)	%
276	51.5	111	20.0	154	28.5

Table 3. Authorship metrics relating to institutions, 2001-2021

Institutional engagement pattern									
Community groups		Academic Libraries		Universities, colleges		Public Sector (includes national and international bodies)		Private sector	
2	6.2	9	28.1	5	15.6	14	43.7	2	6.2

Table 3 enables visualization of the data by corporate author categories. Community groups or community-based organizations have two publications, so is the private sector. University/ College type bodies have five publications (15.6%) Academic libraries have nine publications (28.1%), and public sector national and international bodies have the highest number of publications (43.7%) in this sample. Picking the lead of one type of library, that is academic in Table 2, the figures in Table 3, are just supporting the fact that there is a need for probing it further.

Table 4, shows the exploding number of publications, from 2006 onwards. The hike every five years is probably indicating the level of growth of the interest in the subject. If so, an impact factor of such tremendous growth is imperative. And worth being considered in a future study (Appendices 2 and 3 have several publications for such a futuristic study).

Table 4. Chronological growth of the subject SJ., 2001-2021

Chronological	Total	%
2001- 2005	31	5.9
2006 - 2011	93	17
2012- 2016	172	31
2017 - 2021	245	45.1
	541	

Table 5 gives a glimpse of the emerging themes in this new wave of publish or perish. In Table 5, the sum of 541 titles, has 12 categories (labeled as themes or phrases). In Table 5 at the highest rank is Library. In other words, the core subjects are the four (60% of content), as against eight indicating the level of scattering (40%).

An attempt has been made in this table to combine singular or plural, and to use a uniform term for different words in the same context, e.g., education (curriculum, campus, education, courses, etc.), COVID-19 (Pandemic, Virus), diversity (diverse) Inclusion (inclusive, Inclusivity), Equity (Equitable).

Table 6 displays the context of words in the title. Suffix or prefix is meant to strengthen the subject representation for the resource discovery as well as for the end-users. For example, a metadata librarian will be aware of the emerging themes for indexing and hyperlinking with the other existing subject trees.

Table 7 goes one more step in finding an answer to the content (i.e., scholars), context (field of specialization), and affiliation.

Table 5. Themes / phrases in titles in sources compared, 2001-2021

Concepts	#	%
Social Justice	86	15.4
Civic Engagement	32	5.9
Equity	40	7.2
Diversity	32	5.9
Inclusion	27	4.5
Human Rights	24	4.43
Access	19	3.27
Participation	19	3.27
Library	167	30.4
Archive	53	9.79
Museum	42	7.2
Total	541	100

Table 6. Keywords in context: suffix and prefix

KW Examples from Titles in References	KW can be placed under a subject category:
COVID-19 lockdown	Public Health
misinformation about COVID-19	Communication
COVID-19 infodemic	Cyber security
COVID-19 pandemic,	Global health crisis
COVID-19 datasets	Technology
COVID-19 open access resources	digital divide
laypeople access to the COVID-19	underprivileged
Fake news and Covid-19	social exclusion
Coronavirus disease 2019 (COVID-19)	terminology
COVID-19-era	New age
Coronavirus (COVID-19)	terminology
COVID-19 - Racial equity & social justice resources	Management
behavior in pandemic: Lessons from COVID-19	Psychology

In Table 8, the first column is about authorship. The second column identifies the publisher. The third column is about the availability of an EDI statement or an EDI policy. This is mostly not visible on the first page of the website, and to trace in the other sections of the website needs tools and scanning the terminology. Hence, this is left for a future study. Column four is about access, if free or not free. Column five is to find if the governance of the publication has diversity by subject, geography, or other factors.

Table 7. First or lead authors and their affiliation, with at least two publications, 2016-2021

Author	Title	Jounal	Cited by	Affiliation
Federer, L. (2018)	Defining data librarianship: A survey of competencies, skills, and training.	*Journal of the Medical Library Association*	60	Medical Library (NIH)
Federer, L. (2016).	Data literacy training needs of biomedical researchers.	Journal of the Medical Library Association	33	Medical Library (NIH)
Cooke, Nicole A., (2016)	Social justice as topic and tool: An attempt to transform an LIS curriculum and culture.	*Library Quarterly*	65	Faculty, LIS
Cooke, Nicole A., (2017)	Implementing Social Justice in the LIS Classroom.	Library Juice Press		Faculty, LIS
Cooke, Nicole A., (2019)	Getting It on the Record: Faculty of Color in Library and Information Science	Journal of Education for Library and Information Science	4	Faculty, LIS
Martin, Elaine Russo (2020)	Democratic Librarianship: The Role of the Medical Library in Promoting Democracy and Social Justice.	Journal of the Medical Library Association,	3	Medical School Library
Martin, Elaine Russo (2019)	Social Justice and the Medical Librarian."	Journal of the Medical Library Association	4	Medical School Library
Pateman, J., (2016).	From social inclusion to community cohesion. (book chapter)	Routledge.	15	Public Library
Pateman, J (2016).	Public libraries and social justice.	Routledge	116	Public Library
Pateman, John, (2016)	Developing community-led public libraries: Evidence from the UK and Canada.	Routledge	71	Public Library
Pateman, John, (2016)	Class and Librarianship: Essays at the Intersection of Information.	Progressive Librarian.	0	Public Library

CONCLUSION

This chapter aimed at exploring the concept of emergence and development of social inclusion in libraries, archives, and museums. The questions that we're looking for answers to be included, finding the state of the art of social justice in general, and social inclusion in particular. Towards this, the chapter highlighted the beginning, development, and the current overall status. Case studies, tools, teaching, and learning topics were reviewed with the respective literature. It is hoped that this exploration of issues and barriers in social inclusion will help the practitioners and researchers to move ahead in finding direct solutions.

Table 8. Occurrence of the word 'inclusion' in the title: an assessment of publications

Publication	Publisher	Publisher has a clear EDI policy statement	Documents (Doc) are openly accessible to all" (Yes) or (limited by behind the pay walls) (N)	Editorial Board Inclusive (Yes / No)
Afolayan, J. O., Ogundokun, R. O., Afolabi, A. G., & Adegun, A. A. (2020). Handbook of Research on Digital Devices for Inclusivity and Engagement in Libraries. [publication format – a book chapter]	IGI-Global.com.	N/a	N (not free)	Y
Akers, K. G. (2019). Correction to "Social justice and the medical librarian" on 107 (3) July, page 302. *Journal of the Medical Library Association, 107(4),* 638. [publication format – article]	JMLA. [mlanet.org]	[Diversity, Equity, and Inclusion Initiative]	Y (Open Access Policy)	Y
Alabi, J. (2018). From hostile to inclusive: Strategies for improving the racial climate of academic libraries. *Library Trends, 67(1),* 131-146. publication format – article] [	press.jhu.edu /	N/a	N	Y
Borello, L., & Borah, S. (2021). Social Justice Advocacy Amidst Institutional Precarity: A Case Study of Diversity, Equity, and Inclusion Efforts during COVID-19. ecommons.udayton.edu	N/a	N/a	N/a	N/a
Gibson, A. N., Chancellor, R. L., Cooke, N. A., Dahlen, S. P., Lee, S. A., & Shorish, Y. L. (2017). Libraries on the frontlines: Neutrality and social justice. Equality, Diversity, and Inclusion: An International Journal. publication format – article]	jps.library.utoronto.ca	N/a	Y (Open Access Policy)	Y
Gustina, Margo, and Eli Guinee. (2017). Why Social Justice in the Library? The Case for Shifting Library Policy, Practice, and Culture toward Radical Inclusivity. *Library Journal,* 142 (10), 42–46. publication format – article]	journals.uchicago.edu	n/a	N (not free)	y
Kozyra, K. L. (2021). Beyond Inclusion: Meaningfully Engaging Visitors with Disabilities. In Engaging Communities Through *Civic Engagement in Art Museum Education* (p. 78-95). IGI Global [publication format – a book chapter]	IGI-Global.com.	N/a	N (not free)	Y
National Gender and Equity Campaign. (n.d.) A Guide on Community Engagement: Making Social Justice Work Inclusive. ~ racialequitytools.org/ [publication format – a book chapter]	racialequitytools.org	n/a		
Obinyan, O. O. (2020). Application of Mobile Technologies in Library Service Delivery. In Tella. A. (Eds.), Handbook of Research on Digital Devices for Inclusivity and Engagement in Libraries (p. 371-381). IGI Global. [publication format – a book chapter]	IGI-Global.com.	n/a	N (not free)	Y
Raju, J. (2020). Diversity, Inclusion, and Social Justice in the Information Context. *The International Journal of Information, Diversity, & Inclusion (IJIDI), 4(3/4),* publication format – article]	jps.library.utoronto.ca	n/a	Y (Open Access Policy)	Y
Thompson, K. M., & Paul, A. (2016). "I am not sure how much it will be helpful for me": Factors for digital inclusion among middle-Class Women in India. *Library Quarterly, 86(1),* 93–106. publication format – article]	journals.uchicago.edu	n/a	N (not free)	y

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KEY TERMS AND DEFINITIONS

Access: Barrier-free.

Civic Engagement: Facilitate ways to create common ground.

Digital Divide: Barriers that prevent access and use.

Diversity: Presence of differences.

Equality: Using a lens of a group, with sympathy.

Equity: Using a lens of an individual, with empathy.

Social Inclusion: Equal opportunity.

Social Justice: Creating opportunities for all.

APPENDIX 1

Current and Futuristic Directions in Publications, 2016-2021 (<u>T</u>heory, <u>P</u>ractice, <u>R</u>esearch)

Archives

Case study:

De Fazio, D. D. (2021). Megan Rosenbloom. Dark Archives: A Librarian's Investigation into the Science and History of Books Bound in Human Skin. New York, NY: Farrar, Straus and Giroux, 2020. 288p. College & Research Libraries, 82(4), 609. **R**

Miscellany:

Abdul, Majeed. C. P., & Sāhityapravarttaka Sahakaraṇasaṅghaṃ, (2017). Archival science: Past, present and future. Kottayam, Kerala State, India: Sahithya Pravarthaka Co-operative Society, October 2017. **T**

Gilliland, A. J., & Halilovich, H. (2017). Migrating memories: transdisciplinary pedagogical approaches to teaching about diasporic memory, identity and human rights in archival studies. Archival Science, 17(1), 79-96. **T**

Punzalan, R. L., & Caswell, M. (2016). Critical directions for archival approaches to social justice. The Library Quarterly, 86(1), 25-42. **T**

Infrastructure:

Baron, J. R., & Payne, N. (2017, May). Dark archives and eDemocracy: strategies for overcoming access barriers to the public record archives of the future. In 2017 Conference for E-Democracy and Open Government (CeDEM) (pp. 3-11). IEEE. **P**

LAM

Case Study:

Hylton, M. E. (2018). The Role of Civic Literacy and Social Empathy on Rates of Civic Engagement among University Students. **R**

Bassey, M. O. (2010). Education for civic citizenship and social justice: A critical social foundations approach. Education as Change, 14(2), 247-257. **T**

Giesler, M. A. (2017). A place to call home? A qualitative exploration of public librarians' response to homelessness. Journal of Access Services, 14(4), 188–214 **R**.

Huvila, I. (2016). Change and stability in archives, libraries and museums: mapping professional experiences in Sweden. Information Research, 21(1), paper memo5. **R**

Rosario-Ramos, E. M. (2020). A Case for Disciplinary Literacies That Support Civic Engagement and Social Justice. Journal of Adolescent & Adult Literacy, 64(2), 211-214. https://ila.onlinelibrary. wiley.com/doi/abs/10.1002/jaal.1078 **T**

Segal, E. (2011). Social empathy: A model built on empathy, contextual understanding, and social responsibility that promotes social justice. Journal of Social Service Research, 37(3), 266–277. **T**

Miscellany:

Audunson, R., Andresen, H., Fagerlid, C., Henningsen, E., Hobohm, H. C., Jochumsen, H., ... & Vold, T. (Eds.). (2020). Libraries, archives and museums as democratic spaces in a digital age. Walter de Gruyter GmbH & Co KG. [Cross-country Comparison of Legislation and Statistics on Services and Use] **R**

Bartlett, J. A. (2016). Adding Value to Libraries, Archives, and Museums: Harnessing the Force That Drives Your Organization's Future. Reference & User Services Quarterly, 56(2), 135. **P**

Hughes, H., & Oliver, G. (2016). Passion trumps pay: A study of the future skills requirements of information professionals in galleries, libraries, archives and museums in Australia. Information Research, 21, 2. **T**

Modeva, M., & Todorova, T. (2021). Academic Education at Library and Information Management with Reflection to The Glam-Sector Collaboration. In Inted2021 Proceedings (Pp. 5633-5637). **T**

Patterson, T. (2021). Historians, Archivists, and Museum Educators as Teacher Educators: Mentoring Preservice History Teachers at Cultural Institutes. Journal of Teacher Education, 72(1), 113-125. **P**

Ramasubramanian, S., & Darzabi, R. (2020). Civic engagement, social justice, and media literacy. Routledge. **R**

Stauffer, Suzanne M. (2021). Libraries, Archives, and Museums an Introduction to Cultural Heritage Institutions through the Ages. Rowman & Littlefield. **P**

Infrastructure:

Dudley, J. (2021). Resource Discovery for the Twenty-First Century Library: Case Studies and Perspectives on the Role of it in User Engagement and Empowerment: edited by Simon McLeish, London, Facet, 2020, p. 203. **T**

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APPENDIX 2: ROLE OF LAM IN ACHIEVING SOCIAL JUSTICE AND CIVIC ENGAGEMENT – SELECT READINGS

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Chapter 4
Helping Communities Confront Extremism:
A Role for Librarians in Debunking the Claims of Extremists on Social Media

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ABSTRACT

False claims disseminated on social media by extremists can convince ordinary people not just to sit in their armchairs and rage at the violence of one side or another but to leave their homes either to riot at the Capitol in Washington, DC, for example, or to sneak over international borders in order to join the so-called "Islamic State." Governments' softer counterextremist policies may focus on messaging but tend to overlook the specific claims aimed at those vulnerable to radicalisation. Furthermore, general lack of trust in officialdom can undermine its messaging or even serve to bolster the extremist "us and them" narrative. This chapter suggests that, by harnessing their specialist information literacy knowledge and skills, librarians can build on their positive social capital and assume an active role in developing in their users the critical thinking and awareness necessary to identify and expose misleading extremist propaganda, thereby helping to make their local communities safer.

INTRODUCTION

This chapter aims to be as practical as it is evidence-based, synthesising years of professional experience in national and academic libraries as a curator of Arabic manuscripts; a cataloguing trainer; a manager responsible for the international marketing for library and information services; a bibliographic coordinator; and as a head of archival publishing. These varied roles have been followed by over a decade serving as a Muslim chaplain in a young offenders' institution and working with convicted terrorists in a high-security prison. It presents examples of quotations from classical Islamic texts that have been deliberately taken out of context to justify atrocities perpetrated in the name of Islam. By being widely

circulated by Muslim extremists on social media and occasionally acted on by Muslim terrorists, such quotations then come to the attention of neo-Nazis or White supremacists, who then exploit them to whip up support for anti-Muslim hatred and violence, and to bate ordinary Muslims online who utterly reject the atrocities done in the name of their faith, but who equally lack the ability to formulate cogent, evidence-based arguments to support their religious beliefs. This is where the skills of professional librarianship come in. By identifying the bibliographic sources of the quotations, and thus locating them in their textual and historical context, it is possible for public and academic librarians working together locally, nationally or even internationally, to serve citizens in their communities by providing answers to queries from those vulnerable to radicalisation, or from their families, friends, schools, clubs, mosques, churches, etc., on the validity of the truth claims that they see made by extremists.

Finally, in this introduction, while going through this chapter, readers may feel that lacunae exist in two key areas: first, the contribution of public and other libraries in the formation of good citizens through the teaching of information literacy; and second, analysing comparable examples of neo-Nazi and far-right extremism, fascism and White supremacism as a counterbalance to the, hopefully, clear examples of Islamic extremism. Regarding the first lacuna, insofar as this chapter presents anything new in relation to the acknowledged role of librarians in disseminating both knowledge and the information literacy skills to interpret it, its focus is entirely on the 'what' and not the 'how' or the 'why' of information literacy, which form the focus of training and review by the professional associations that represent librarians and information managers, such as CILIP in the UK (CILIP Information Literacy Group, 2018). As regards the second lacuna, it is in recognition of the author's lack of expertise in this field, and not due to any denial of its equal – if not greater – relevance in English-speaking Western democracies whose majority ethnic groups often appear to be the unwitting targets of xenophobic dog-whistle messaging by politicians and media corporations of a certain hue.

Background

The background to this chapter is threefold. It begins with an event in Raqqa, Syria, early in 2015. It then considers the radicalising effect that event had on one individual with inadequate information literacy skills. Finally, it explores what, if anything, librarians in that individual's country might proactively do to address the risks of radicalisation in their communities.

An Event

On 3rd January 2015, Muath al-Kasasbeh, a captured Jordanian air force pilot, was publicly burnt alive in a cage in Raqqa, Syria, the then capital of the so-called Islamic State (IS). Shortly thereafter tweets began to circulate amongst IS supporters on social media with images of an excerpt translated from a classical Arabic Islamic legal text. Figure 1 is an example of those images, showing the highlighting of in different colours of what the person posting wanted to draw the reader's attention to. While the title of the original work was not given, the reader was told that it was a quotation from Imam al-Nawawi (d.1277 CE). The image's use of the al-Nawawi 'brand' is not incidental, as he remains one of the best-known jurists and hadith scholars of Islam.

Figure 1. One of the images of the same excerpt wrongly attributed to al-Nawawi, and circulated on Twitter by IS supporters in the wake of the burning to death of a Jordanian pilot (s.n., 2015).
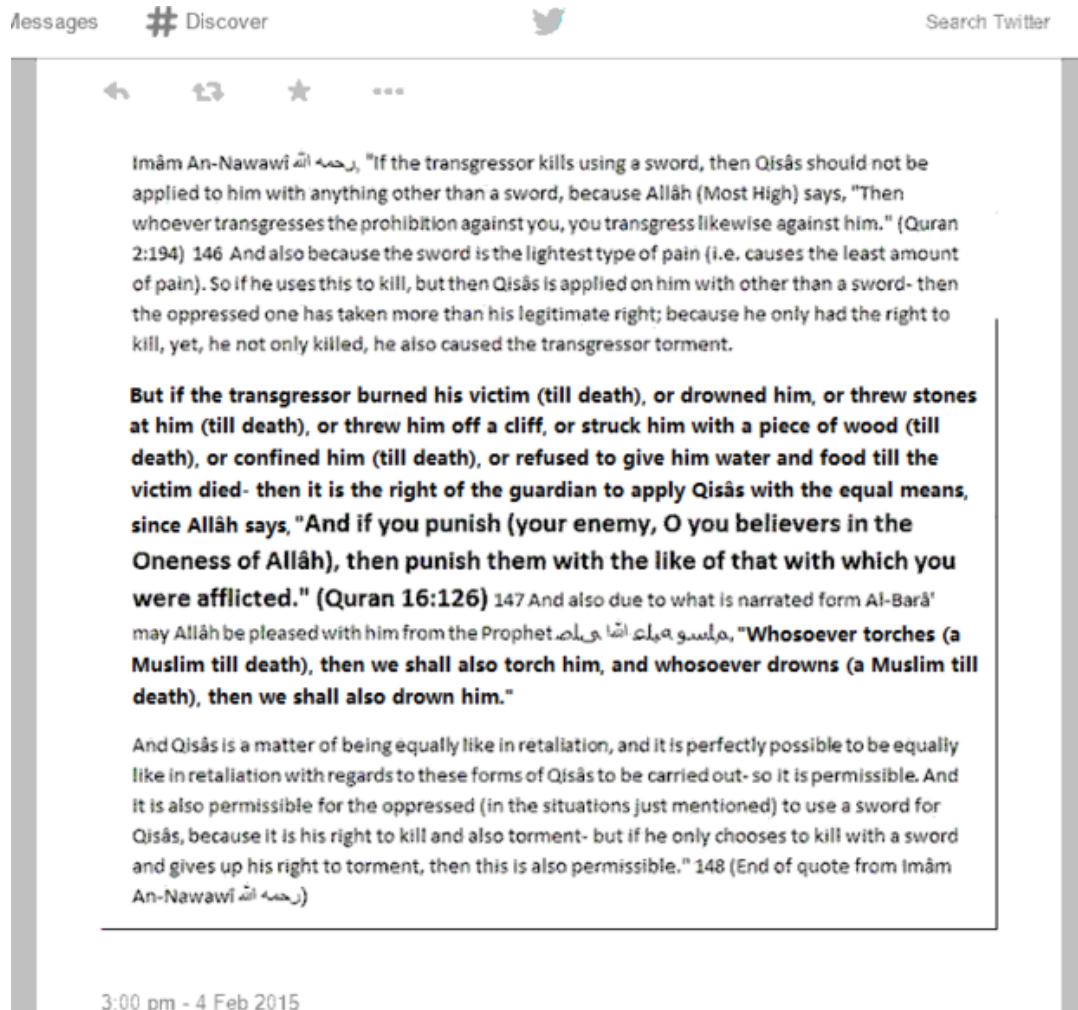
Highlighted in the text were the following words attributed to the Prophet Muhammad, "Whosoever torches [a Muslim till death], then we shall also torch him; and whosoever drowns [a Muslim till death], then we shall also drown him." So, apparently, scriptural evidence existed that justified the actions of IS. But was it sound?

A Radicalised Individual

Now imagine, at around the same time, at least one young college student in England is in moral shock. Like many of his British Muslim peers, he yearns for the global community of Muslims, the *Ummah*, to rise out of its present divided and diminished state and return it to its former glory, a beacon of piety, of justice, of civilisation, of learning, and of scientific, technological and medical advancement; and he sincerely believes that IS will bring that about. However, he has seen images of Muath al-Kasasbeh's

death, and his conscience tells him that, despite his emotional attachment to this self-proclaimed caliphate, this form of punishment cannot possibly be Islamic or right. However, in the process of his 'research', he comes across one of the many tweets containing the above quotation. As an earnest young man, albeit without the necessary linguistic and intellectual powers to question, evaluate and verify, he reaches the obvious conclusion intended by the those behind the tweets that, because the Prophet had said that the penalty of burning people alive was Sharia-compliant, he must as a Muslim accept it and reject as false his initial revulsion based on conscience. Not only that, but it is his duty to circulate the results of his research to his friends so that they do not waiver in their trust of and support for IS, as he had. Yet by doing this, our young Muslim falls foul of the law, is arrested, charged, tried, and convicted under the Terrorism Act (2006). Some years after his conviction, during a one-to-one session with a prison chaplain, the individual is shown the image in Figure 1, and he exclaims, "That's why I'm in here." Together with the chaplain, he goes through a translation of the excerpt in context. At the end of the session, he returns to his cell to ponder how to react to his new-found knowledge, that he has wasted a significant portion of his youth, destroyed his family's hopes for him and, arguably, his own future, on the basis of what?

A Librarian

Similar references to the role of libraries in countering extremism and terrorism will be found in the official policies of other countries. As for the UK government, its Prevent strategy mentions libraries five times, including:

10.93 But there are a number of internet-specific measures which we need to take to address the threat of radicalisation online. They include steps to:
   ◦ Limit access to harmful content online in specific sectors or premises (notably schools, public libraries and other public buildings) …
10.98 OSCT [i.e. Office for Security and Counter-terrorism] has engaged with DfE [Department for Education], Regional Broadband Consortia and the filtering software industry to explore effective filtering options across the public estate (for example, schools, libraries, etc.). …
10.108 Internet filtering across the public estate is essential. We want to ensure that users in schools, libraries, colleges and Immigration Removal Centres are unable to access unlawful material. (UK Home Office, 2011)

In other words, libraries are to be the passive recipients of filtering software that aims to do the same for extremist and terrorist information online as parental controls at home do for limiting children's access to pornography, for example. Thinking of this, one is reminded of the story of the Buddha's childhood and adolescence:

Siddhartha Gautama was born into a princely family in India near the border with Nepal about 560 BC. His father tried to protect him from the bad things in life, and never let him see any sadness or suffering. But when Siddhartha became a young man he went outside the palace walls for the first time, and was shocked by what he saw. He came upon a wrinkled, old man, a sick man, someone who had died, and a holy man who had given up all life's pleasures. (Breuilly & Palmer, 1993)

As this excerpt from a non-fiction text for children in primary schools shows, knowledge of the more painful aspects of reality cannot be held back from people forever. What the Buddha's father should have realised was that it would not be enough to keep replacing aging and sick servants and courtiers with younger, healthy ones, sworn not to talk about the hardships that they see and experience outside. Eventually, he too would have had to leave the palace, or else become himself the embodiment of the very suffering from which he had tried to shield his son.

Librarians understand that the initiative mentioned in the following quotation from the Prevent strategy, though laudable, and even if the resources devoted to it are sufficient, will always be playing catch-up, resulting in some at least of the inquisitive young 'Siddharthas' in our midst finding and seeing what counterextremism strategies seek to block.

10.100 In early 2010 the police, in association with the Home Office, launched a Counter Terrorism Internet Referral Unit (CTIRU). The CTIRU is a dedicated police unit intended to assess and investigate internet-based content which may be illegal under UK law and to take appropriate action against it, either through the criminal justice system or by making representations to internet service providers or, where necessary, by both these means. (UK Home Office, 2011)

Preventing vulnerable people becoming radicalised must eventually include teaching them to protect themselves. Sooner or later, they will have to internalise the old adage, "Don't believe everything you read in the papers," suitably updated for the Internet age, and learn both how to verify for themselves the validity of what they see and read and also whom to ask if they need help. This is where libraries have a part to play, and not just by hosting software that frustrates anyone searching on one of their computers for how to make a bomb, for example. The role of librarians is not simply to 'curate' a manageable collection of carefully selected information resources, and to assist users in accessing them through a catalogue or by browsing physical items, all painstakingly arranged by subject classification and format on the shelves; it also includes teaching users how to find information for themselves and, most importantly, to evaluate the information that they find.

EXAMPLES OF TWISTING ISLAMIC TEXTS

What follows here are real examples of how, because it is drawn verbatim either from Islamic scriptural texts or from the works of respected classical Muslim scholars, internet-based content which is not of itself illegal can be twisted to support terrorism carried out in the name of Islam.

Misquoting the Qur'an

On 23 February 1998, the London-based Arabic daily newspaper, *al-Quds al-'Arabi*, as shown in Figure 2 below, published the so-called World Islamic Front for Jihad on Jews and Crusaders' declaration, attributed to Osama bin Laden, al-Zawahiri and Rifa'i Taha, which asserted that all able Muslims had an obligation to kill Americans anywhere they found them, regardless of their military or civilian status.

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Figure 2. An image of a cutting from the 23 February 1998 issue of al-Quds al-'Arabi, with its reference to the fatwa to "Kill Americans everywhere" attributed to leadership of Al Qaeda (Bin Laden, et al., 1998)

Within the text of the declaration, the authors further claimed that this ruling was based on a consensus of classical and modern scholars, and specifying four of classical Islam's most famous scholars: Ibn Qudamah, a jurist perhaps best known for *al-Mughni*, a commentary on a legal compendium of the Hanbali school; al-Kasani, a Hanafi jurist famous for his compendium *Bada'i' al-sana'i' fi tartib al-shara'i'*; al-Qurtubi, a Quran commentator of the Maliki school of law; and finally Ibn Taymiyah, to whom the declaration refers simply by his title, Sheikh al-Islam. From the point of view of verifying the validity of the ruling from original sources, this makes the bibliographic task easy. However, the names are not intended to encourage the reader to head to a reference library. Rather, they should be considered a 'dog whistle' signaling to the target audience, "Don't worry! We've done your research for you. If these towering figures in classical Islamic scholarship approve of the ruling, then you can set aside any qualms that you imagine come from your conscience or are based on imperfect prior learning."

The declaration begins in the traditional way, including a quotation of the first half of verse 9:5 of the Qur'an:

Praise be to God, Who sent down the Book, propels the clouds, and routs the [enemy] crowds, and Who said among the clear-cut [verses] of His Book: {Then, when the sacred months have passed, slay the idolaters wherever you find them, seize them, surround them, lay in wait in every place of ambush}. And blessings and peace be upon our Prophet Muhammad ibn Abd Allah… (Bin Laden, et al., 1998)

In relation to the Qur'an, the phrase "clear-cut [verses]" means that the words are both legally binding and the opposite of ambiguous. Given that the text of the declaration claims that its ruling is based in part on the well-respected legal commentary of Imam al-Qurtubi (d.671/1273), it makes sense to check how he began his comments on Q.9:5:

His – may He be exalted – saying {then slay the associators} is general on every associator though, as explained previously in Surat al-Baqarah, the Sunnah made exceptions of women, monks, children and others. God – may He be exalted – said concerning the People of the Book [Q.9:29] {until they pay the jizyah}, thus making it possible that the term 'associator' does not include the People of the Book. (al-Qurtubi, 2005)

In line with the style of such works, al-Qurtubi started by making a semantic point that the Qur'anic phrase "slay the associators" is general. So, taken on their own, the words could literally be taken to mean that anyone who associates any partner or comparable power, such as idols or wealth, with God is to be slain. Having made that clear, al-Qurtubi immediately explains reasons why the command to slay must not be taken in its literal sense. However, the Arabic-speaking reader of the newspaper in which the declaration was published, though she or he may well have heard of the commentary, would probably not have studied it.

Misquoting Imam al-Nawawi

Returning to the question of the soundness of the evidence presented in Figure 1 above to support IS's actions, in fact the excerpt was false in two significant ways:

1. The author of the original Arabic text translated into English and posted on Twitter was not al-Nawawi. Rather, it is from a twenty-volume legal compendium, *al-Muhadhdhab fi fiqh al-Imam al-Shafi'i* by Abu Ishaq Ibrahim ibn Ali al-Firuzabadi al-Shirazi (d.476/1083).
2. The words attributed to the Prophet in Abu Ishaq al-Shirazi's work were identified by Muslim scholars in the ensuing centuries as not a hadith, but taken from a sermon by Ziyad ibn abih (i.e. son of his father), a governor of Iraq, haranguing a congregation hostile to the Omayyad dynasty.

Regarding the first point, it is true that a commentary on Abu Ishaq al-Shirazi's work was started by al-Nawawi, who called it *al-Mujmu' sharh al-Muhadhdhab*. It is also true that the translated excerpt is found in vol. 18 of *al-Majmu'*, from a section on equivalence in retribution. However, the fact is that al-Nawawi only completed the first nine volumes before his death in d.676/1277. The following century, another scholar, Taqi al-Din Ali ibn Abd al-Kafi al-Subki (d.756/1355), attempted to finish the work, but only managed a further three volumes, from vol. 10 to 12. The commentary on the remainder, from vol. 13 to 20, was not completed under the al-Nawawi's chosen title until the second half of the 20th century by Muhammad Najib al-Muti'i (d.1406/1985). So, the only basis for attributing the excerpt to al-Nawawi is that his name appeared first on the title page of the 1966-1969 print edition (and in the subsequent digitised version that may well have been used by IS supporters).

In other words, our young Muslim was duped – whether wilfully or negligently – by whoever originally translated posted the tweet, since the translated excerpt from a portion of the commentary completed not by a famous 13th-century Syrian scholar but by a relatively unknown 20th-century scholar from Egypt. However, a further search of *al-Maktabah al-shamilah* (Mu'assasat al-Maktabah al-Shamilah, 2005-2011) confirms what ought to be obvious to anyone familiar with the classical commentary genre, namely that the original author's text is first quoted by the commentator verbatim – as is the case with the excerpt in Figure 1 above – before being commented on it (*Qala al-musannif rahimahu Allah… al-Sharh…* [i.e. "The author – God have mercy on him – said… The commentary…"]). Whilst Abu

Ishaq al-Shirazi was still influential enough two centuries after his death in 476/1083 for his *magnum opus* to warrant yet another commentary, his renown has not lasted nearly as long as al-Nawawi's, who surpassed him as a scholar and remains a household name across the Muslim world to this day. So, for instant name recognition, the translator would have known that al-Nawawi's 'brand' would have more traction among the target readership of relatively uneducated IS supporters – unless, of course, he or she was too ignorant to understand the structure of a legal commentary, and so honestly but mistakenly thought that al-Nawawi was, indeed, the author.

This example of either incompetence in, or else cynical masking of, basic bibliographic facts like the identities of the original author and the commentator brings us to the second point above regarding the origin of the words highlighted in the translation, "Whosoever torches [a Muslim till death], then we shall also torch him; and whosoever drowns [a Muslim till death], then we shall also drown him." As mentioned above, the commentary on this section was compiled not by al-Nawawi, but by the 20th-century Egyptian scholar, al-Muti'i, who began with the opinions of earlier scholars on the weakness of the hadith's chain of transmission (al-Nawawi, et al., 1966-1969):

Commentary: The hadith of al-Bara' ibn 'Azib, which al-Hafiz [Ibn Hajar al-'Asqalani] mentioned in Talkhis al-Habir, in the section on wounding, from the chapter on being excessive in killing (hadith 1631): "Whoever burns someone alive, we will burn him alive; and whoever kills by drowning, we will drown him," transcribed thus with the hamzah in the imperfect tense. [al-Hafiz] added that al-Bayhaqi presented it in al-Ma'rifah as a hadith of 'Imran ibn Nawfal ibn Zayd ibn al-Bara' from his father from his grandfather; and [al-Bayhaqi] said that "in the chain of transmission are some [narrators] who are unknown;" and "rather it was Ziyad who said it in his sermon." [al-Hafiz] also said in al-Dirayah fi takhrij ahadith al-Hidayah, "The hadith 'Whoever kills by drowning, we will drown him' [mentioned in] al-Bayhaqi as a narration of 'Imran ibn Yazid ibn al-Bara' from his father from his grandfather with this [wording], which includes 'Whoever burns someone alive, we will burn him alive; and whoever uses someone as a target [in archery], we will use him as a target,' in its chain of transmission are persons who are unknown." I have said: I have referred to the works on narrators and have found no mention of 'Imran ibn Nawfal, or of Nawfal ibn Zayd, or of Zayd ibn al-Bara'; then I went back to the other narration mentioned in al-Dirayah and found mention only of 'Imran ibn Yazid described as being ignorant…

One cannot read this without concluding that the evidence presented by Abu Ishaq al-Shirazi as a corroborating hadith serves only to undermine not only the then-held position of the Shafi'i school of law to which he belonged, but also that adopted by IS to justify the spectacle of executing a prisoner of war by publicly burning him alive. Either those involved in providing the translation for the tweets knew this, in which case their intention was not to educate English-speaking supporters of IS but to deceive by deliberately omitting information that would expose the fact that their evidence was at best hearsay. Either way, to find all this out requires far more research competence than the ability to read a tweet on social media. It requires significant bibliographic and linguistic expertise that a hot-headed young college student simply doesn't possess, but that some librarians do, along with the access to the source materials in hardcopy or digital formats. As for those public librarians who, despite their bibliographic knowledge, lack the necessary linguistic skills either to search through, or to translate from, classical Arabic resources, they make up for this with their professional competence in either knowing or finding who can resolve a particular information query, be it from a nearby university where Arabic and Islamic studies are taught, or from a local mosque.

Misquoting Imam al-Qurtubi

Another example of misquoting, and hence misrepresenting, a leading classical Muslim scholar relates to the claim that, in the first half of verse Q.9:5, God ordered Muslims to kill all 'kuffar' (i.e. disbelievers) wherever they find them, and that al-Qurtubi wrote in his legal commentary on the Qur'an that this verse abrogated – in other words, abolished the rulings of – all other verses in the Qur'an that refer to having peaceful relations with non-Muslims or showing them any mercy in war. The benefit of this assertion to supporters of IS and, indeed, Al Qaeda before them is that it appears to justify whatever terrorist atrocity is carried out in the name of Islam by supporters of these and similar acts. What is wrong with killing Shiite schoolchildren or non-Muslim passengers on a bus, if any exhortation to act with magnanimity has been abrogated by Q.9:5? But is it true? Yes, al-Qurtubi did write of verse Q.9:5 in his commentary, *al-Jami' li-ahkam al-Qur'an*, that "This abrogates every verse in the Qur'an that mentions turning away from, or being patient in the face of, harm from enemies," but here is the context:

Thereafter [scholars] differed. al-Husayn ibn al-Fadl said, 'This abrogates every verse in the Qur'an that mentions turning away from, or being patient in the face of, harm from enemies.' However, al-Dahhak, al-Suddi and 'Ata' said, 'It is abrogated by His saying (Q.47:4) {thereafter either be magnanimous or ransom}; and since captives are not to be killed in cold blood, they may either be shown magnanimity or may be ransomed.' Mujahid and Qatadah said, 'Rather it abrogates His saying {thereafter either be magnanimous or ransom}; and concerning captives from the associators, only slaying is permitted.' However, Ibn Zayd said, 'Both verses remain binding'; and this is the correct [opinion], as magnanimity, execution and ransom appeared in Allah's Messenger's PBUH rulings on them from the very first war against them, namely the Battle of Badr, as stated above. (al-Qurtubi, 2005)

It is difficult – if not impossible – to imagine that a scholar of Islam would state that al-Qurtubi included the above claim in his commentary without at the same time making clear that he rejected it, unless the intention was deliberately to deceive the reader who lacked the necessary linguistic and religious literacy skills to verify the claim in context. Whilst fluency in Arabic is undoubtedly helpful, the fact that an English translation (al-Qurtubi, 2018-) of al-Qurtubi's highly respected and influential commentary has been started will make debunking such extremist claims easier.

Misquoting Sheikh al-Islam Ibn Taymiyah

Returning to the declaration of the so-called World Islamic Front for Jihad on Jews and Crusaders published on 23 February 1998 in *al-Quds al-'Arabi*, its authors sought to convince their readers not only by the ploy of alleging a consensus of all scholars past and present, where consensus forms one of the universally agreed bases of Islamic law after the Qur'an and the Sunnah. They also, as noted above, aimed to ram their point home by judicious name-dropping, rounded off with a choice quotation from one of the most respected Muslim scholars of all time:

given that the scholars among the predecessors and the successors across all Islamic ages are in consensus that jihad is an absolute obligation [on every individual] if the enemy lays waste to Muslim countries, and among those who have conveyed that [teaching] are Imam Ibn Qudamah in al-Mughni, Imam al-Kasani in al-Bada'i', al-Qurtubi in his [Quran] commentary; and Sheikh al-Islam [Ibn Taymiyah]

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said in his Ikhtiyarat: "As for repulsive fighting, it is the strongest form of repelling aggressor against the sanctity [of life] and the religion, and is by consensus necessary. Regarding the aggressive enemy who corrupts the religion and the world, after faith alone, there is nothing more necessary than to repel him." (Bin Laden, et al., 1998)

There is no doubt that Ibn Taymiyah wrote the above quotation on necessity of repelling aggressors. But what did he write in context? The very next sentences in this learned classical scholar's fatwa state:

… Nor is any condition to be imposed, rather [the aggressive enemy] should be repelled to the extent possible. [However,] our fellow scholars and others have stated that it is necessary to distinguish between repelling an oppressive disbelieving aggressor [on the one hand] and seeking him in [i.e. invading] his lands. Some jihad is by force, while some is by [means of] the heart, invitation [to Islam], proofs, discussion, opinion, planning, and industry… (Ibn Taymiyah, 1987)

So, according to the very source cited to justify killing the ruling to kill the Americans and their allies anywhere, including non-combatants, a clear distinction must be made between repelling an aggressor from one's own lands and invading that aggressor's lands. Furthermore, not only are repulsion and invasion distinct, says Ibn Taymiyah, but also jihad comes in different forms, which today would include imposing boycotts, disinvestment, sanctions, and embargos, as well as negotiating withdrawals, truces, arms reduction treaties, etc. But it seems fair to say that accurately reflecting the pragmatic stance of Ibn Taymiyah, who lived at the time of the Mongol invasion and devastation of much of the Middle East, was never the aim of those who, a few months prior to the 7 August 1998 bombings of the American embassies in Nairobi, Kenya, and Dar es Salaam, Tanzania, wrote:

We therefore, on that basis and in accordance with the command of God, do issue this fatwa to all Muslims with the following ruling: That the ruling to kill the Americans and their allies, be they civilian or military, is an absolute obligation on every Muslim who is able, and in whatever country he finds it easy so to do; and to continue until the Aqsa Mosque [in Jerusalem] and the Sacred Mosque [in Mecca] are liberated from their grasp, and that their armies leave all the land of Islam, flying away, incapable of threatening any Muslim. (Bin Laden, et al., 1998).

An Example of an Extremist Quoting Ibn Taymiyah Correctly

Above are a handful of examples of how, with Muslim extremist rhetoric at least, texts quoted to justify one terrorist atrocity or another can be shown not to stand up to scrutiny when examined in context. And since the repertoire of purported textual justifications is quite limited, research undertaken in response to one query can serve to debunk the redeployment of those extremist arguments in the future also, as the following example shows.

On Saturday 8 May 2021, an atrocity occurred outside the girls' school in Kabul, Afghanistan, resulting in almost a hundred deaths and many more maimed and injured. A few days later, a man convicted years ago of a plot linked to Al Qaeda asked for a copy of an excerpt he had been shown from Ibn Taymiyah's famous treatise on blasphemy, which he hoped would assist him in a discussion he was having with a younger neighbour convicted of an IS-inspired plot. The subject of their discussion was whether it was Sharia-compliant for Muslims in war to target women and girls. The older of the two terrorists has

previously disclosed that one thing that he had learned about Islam in the years following his conviction was the nuanced way in which true scholars presented their legal arguments, which was totally unlike the way in which those scholars' arguments were misquoted by the extremists who claimed to base their actions on those teachings. Anyway, the excerpt he requested was this:

To kill a woman merely on account of [her] disbelief is not permitted. We have no knowledge that killing a disbelieving woman who refrained from fighting was allowed at any time. On the contrary, the Qur'an and the sequence of its revelation indicates that it has never been allowed, since the first verse revealed regarding fighting was (Q.22:39-40) {Because they have been wronged, permission [to fight] is given to those who are attacked; and Allah has the power to help them, * those who were unjustly driven out of their homes} the verse. So, believers were permitted to fight in self-defence and as a punishment to those who had expelled them from their homes and prevented them from declaring God's oneness and worshipping Him; and women play no part in that [fighting]. After that, He prescribed fighting for [believers] generally, explaining it with His words (Q.2:190) {and fight in the way of God those who fight you} the verse. Hence, He did not give permission to fight those who are not party to the fight, and women are not party to the fight. (Ibn Taymiyah, 1975)

It was one of numerous texts that he had had the opportunity to read and discuss with a chaplain from a booklet comprising materials specially selected from the works of the four above-mentioned scholars (Vassie, 2013-2015) in order to readers help probe the validity of the 1998 fatwa.

A Pot Pourri of Misquotations Published in *Dabiq*

One day I was given a sheet of paper containing the twenty-one quotations, which I was told were published in the IS full-colour online magazine, *Dabiq*. They were presented as conclusive evidence so that the reader could rest assured that, apparently according to a wide range of Muslim jurists down the ages, there was no retribution or blood money in the case of a Muslim deliberately killing a non-Muslim. The purpose in publishing them was to allay fears that the perpetrator of a lone-wolf attack might be committing a sin rather than a laudable act. Rather than go through all of them, what follows is the first six, which are accompanied by a comment on their meaning in context.

1.   The Prophet Muhammad (SAW) said, "The kafir [i.e. disbeliever] and his killer will never meet in hellfire." *Sahih Muslim*

Along with other evidences, al-Nawawi's commentary makes clear that it is wrong to interpret the hadith as meaning that a Muslim who kills a non-Muslim will not go to Hell since, in Islamic doctrine, Hell like Heaven is vast, and whoever deserves to be punished in Hell will be punished in Hell; rather they will be kept separate.

2.   Imam Shafi'i said, "The land of Darul Harb [i.e. the abode of war] is permissible for a Muslim to violate the blood and wealth therein because it is a land of shirk [i.e. associating anything with God]." *al-Umm*

This quotation is one of three in the list of twenty-one that could not be found in the original text using appropriate Arabic keywords. However, what is known of the founder of the third surviving Sunni Muslim school of law, from the same book as mentioned, is the legal axiom that "What we have said, and it conforms with both revelation and the Sunnah, as well as with what Muslims generally comprehend and agree upon, is that whatever is lawful in the lands of Islam is lawful in the lands of disbelief, and whatever is forbidden in the lands of Islam is forbidden in the lands of disbelief." Therefore, insofar as al- Shafi'i did write the unidentified quotation above, it is reasonable to assume that it related to what is permissible for an invading army under the command of a duly appointed Muslim ruler to do in enemy territory in pursuit of a war that has been formally declared, and certainly not what one or more individuals may do to their neighbours or fellow passengers on public transport.

3.   al-Tabari said, "The ijma' [i.e. consensus] is that the ruling of Allah on the harbi mushrikeen [i.e. hostile idolaters] is that they are to be killed." *Tafsir al-Tabari*

This appears to be based on al-Tabari's commentary on Q.5:34, in which the commentator states that the correct interpretation is that the verse demonstrably does not apply to hostile idolaters but rather relates to insurgents, be they Muslim or non-Muslim citizens of Muslim-ruled lands, who reject all efforts at reconciliation, and who are captured before they repent of their rebelliousness and seek reconciliation with the Muslim ruler.

4.   Ibn Taymiyah said, "Concerning the Muslims who enter Darul Harb, likewise if he kidnaps them or their children, or subdues them in any way, then the life and wealth of the harbi kuffar [i.e. hostile disbelievers] are permissible for the Muslim, so if they seize them in a shar'i [i.e. Sharia-compliant] manner, they own them." *Majmu' al-fatawa*

This sentence occurs in a lengthy legal response to a question on a specific situation which may well still be relevant today, but only in the illegal world of human trafficking and modern slavery. The question is about a person from the non-Muslim lands who, because of debts, sells himself to a Muslim, takes the price of his sale, pays off his debt, and then also sells his daughter into slavery; however, the Muslim merchant loses money in transporting his purchase to Muslim-ruled lands. In such circumstances, was it permissible to buy and sell such slaves? The answer is not general but specific, relating to Muslims who clandestinely infiltrate non-Muslim lands and seize non-Muslim insurgents (i.e. people who had been living peacefully in Muslim-ruled lands, rebelled then fled to a non-Muslim land). The fatwa then goes on to discuss the different opinions on the lawfulness of Muslims buying slaves, or receiving them as gifts, from non-Muslims in non-Muslim lands who fight and enslave each other.

5.   Ibn Taymiyah said, "Kufr [i.e. disbelief] alongside muharabah [i.e. violent rebellion] is present in every kafir, so it is permitted to enslave him, as it is permitted to kill [sic] him." *Majmu' al-fatawa*

Again, the question to which this is a response is very specific: Suppose a man of the Quraysh tribe who marries a slave of his, and she bears him a son, is that son born free or into slavery? The above quotation is a single clause in the lengthy fatwa, which is condensed onto a single page in Figure 3 below. The sentence from which the quotation is drawn includes a declaration that it is absolutely forbidden to take captive any non-Muslim with whose country there is a treaty, and it goes on to state

that the enslavement of disbelievers is only allowed under the prevailing conventions of war, when the killing of those actively involved in the fighting is also permitted. Showing the quotation in context like this makes clear how hard it would be for a dispassionate reader with an ability to make reasonable sense of complex legal texts to claim that the quotation fairly represents what the scholar intended his contemporaries to understand. Furthermore, the final phrase "as it is permitted to kill him" ought more correctly to be translated "as it is permitted to fight him." While fighting in battle is likely to result in people being killed, nevertheless, unlike the extremist choice of words, it does not mean – or, indeed, imply – the sort of indiscriminate killing of people in the street with the deliberate intention of terror- izing a civilian population. This may seem like a trivial semantic point. However, words matter in law; and as Muslim scholars have been at pains to point out since the early days of Islam, the two parties to a fight do at least both have some intention to use violence against the other. The same cannot be said of passengers on a bus or shoppers in a market.

6.   al-Shawkani [i.e. Muḥammad ibn ʿAlī, 1759-1839] said, "It is allowed for the Muslim who enters Darul Harb (with an aman [i.e. guarantee of safety] from its people) to take whatever he is able of their wealth and to shed whatever he is able to of their blood." *al-Sayl al-jarrār al-mutadaffiq ʿalá ḥadāʾiq al-Azhār*

The remaining fifteen quotations and the comments one might make on them are in a similar vein. And no sooner is such misinformation posted by Muslim extremists than it is peddled by neo-Nazis to bate anybody else, including ordinary Muslims, who lack the knowledge to rebut the arguments, if one may call them that.

Far Right agitators convince their supporters that instead of amplifying hatred they are merely "telling the truth" about Muslims… While at the same time Islamists are telling Muslims that they should not associate with "worse than animals" non-Muslims. (Commission for Countering Extremism, 2019)

Representing the Error of the Muslim Terrorist Argument Visually

There is a famous hadith in *Sahih al-Bukhari*, regarded by Sunni Muslims as the most authentic and authoritative collection, in which the Prophet said that "Religion is easy, and whoever strives to make religion harsh will be overcome by it." An example of how harshness can overcome a person is mentioned above in relation to 'researching' the so-called IS's public execution of a prisoner of war by burning them alive, while Figure 4 and 5 below shows how relatively easy it is to show, with a couple of handfuls of core uncontroversial quotations from respected classical legal scholars, what the Sharia has actually taught since the earliest days of the Islamic era.

It is not necessary to have absolutely accurate statistics over what percentage of the population of non-Muslim-majority lands is male or female, prepubescent or frail and elderly, healthy or suffering from chronic illness. The ordinary citizen's knowledge of the world around us is sufficient to rapidly build up a good idea, as in Figure 4, of how the ruling to *{slay the associators}* derived from Q.9:5 is in fact the exception, relying solely on information taken from classical Islamic texts chosen by terrorists because the authority of the scholars who wrote them.

Figure 3. The entirety of Ibn Taymiyah's fatwa in Arabic, from which is taken the sentence "Kufr alongside muharabah is present in every kafir, so it is permitted to enslave him, as it is permitted to kill [sic] him."

Figure 4. A worksheet providing an easy way to help those with a basic mathematical education probe the validity of the ruling on indiscriminate killing in the 1998 fatwa attributed to Al Qaeda

bismihi ta'ala

If first quotation below contains the GENERAL RULE and the rest are EXCEPTIONS, divide up and label the circle to represent each category of non-Muslims listed below, then shade in each segment covered by an exception (e.g. farmers). Roughly what proportion of the circle remains unshaded, meaning they are lawful targets in war?

From al-Qurtubi's Qur'an commentary:
- on Q.9:5: "[God's] saying *{then slay the associators}* is general on every associator though, as explained previously in *Surat al-Baqarah* (Q.2:190), the Sunnah made exceptions of women, monks, children and others…"
- on Q.2:190: "Ibn Abbas, Umar ibn Abd al-Aziz and Mujahid said [the ruling in] this verse is binding, meaning 'Fight those who are currently fighting you, and do not transgress by killing women, children, the monks and their like.'"
- on Q.9:6: "Sa'id ibn Jubayr reported that a man came from the associators to Ali ibn Abi Talib and said, 'If one of our men wished to come to Muhammad after the four months had elapsed and so listened to the Word of God, or to come to him for any other reason, would he be killed?' Ali ibn Abi Talib replied, 'No, because Allah says *{And if one of the associators should seek your protection, grant him protection so that he may hear the Word of God}*.' This is the correct [opinion]."

From Ibn Qudamah's *al-Mughni*:
- "The Prophet ﷺ killed a woman who had thrown a millstone at Mahmud ibn Salamah."
- "It has been related from Abu Bakr al-Siddiq and Mujahid, and it is also narrated from Ibn Abbas in relation to His ﷻ word *{Do not transgress [the bounds]}* that he said [it means]: 'Do not kill women, children and elderly men.'"
- "It is reported from Abu Bakr al-Siddiq that he ordered Yazid, when he sent him to Syria: 'Do not kill children, women or frail [old men]'; and from Umar that he ordered Salamah ibn Qays, saying: 'Do not kill women, children and frail old men.'"
- "Ibn Abbas reported that the Prophet ﷺ passed by a woman killed on the day of the Trench, and he said, 'Who killed her?' A man said, 'I did, O Messenger of God.' He said, 'Why?' He said, 'She confronted me while my sword was raised.' He said that [the man] then fell silent because the Prophet ﷺ had stood over a woman who had been killed, and he had said: 'What about her, killed even though she did not fight?' This is what indicates either that he [ﷺ] prohibited killing women, if they were not fighting, or because they do not normally fight."
- "On monks, it is reported in a hadith that Abu Bakr al-Siddiq said, 'You will pass by people in monasteries, who have imprisoned themselves in them. Call them [to Islam], so that God may cause them to die in their error." That is because they do not fight for religious reasons, so they are similar to those who are unable to fight.
- "Umar al-Khattab said, 'Fear God regarding peasants who do not wage war on you,' and al-Awza'i said: 'The ploughman should not be killed, if it is known that he is not involved in fighting.'"

From Ibn Taymiyah's *al-Sarim al-maslul*:
- "To kill a woman merely on account of [her] disbelief is not permitted. We have no knowledge that killing a disbelieving woman who refrained from fighting was allowed at any time."

From *Sunan al-Nasai*:
- "Whoever unlawfully kills a person protected by treaty, Allah will forbid him from smelling the scent of Paradise." (See also Q.4:92 & Q.9:4.)

From *Sahih Muslim*:
- "… Allah's Messenger ﷺ did not used to kill children, so do not kill children…"

To help you begin, the circle is split down the middle to represent roughly 50% females and 50% males. Remember, not all males are fighters. Some are too young or too old. Some are labourers, not soldiers. Likewise, even in the early days of Islam, as today, some women did carry weapons and fought in battle.

Pie chart exercise devised by RV, Muslim chaplain, to help visualise the extent of God's command (Q.9:5) to *{slay the associators}*   (5/7/2021)

Figure 5. A pie chart with unshaded and shaded segments showing who it is and is not permitted to kill in war, according to the sources mentioned in the 1998 fatwa attributed to Al Qaeda
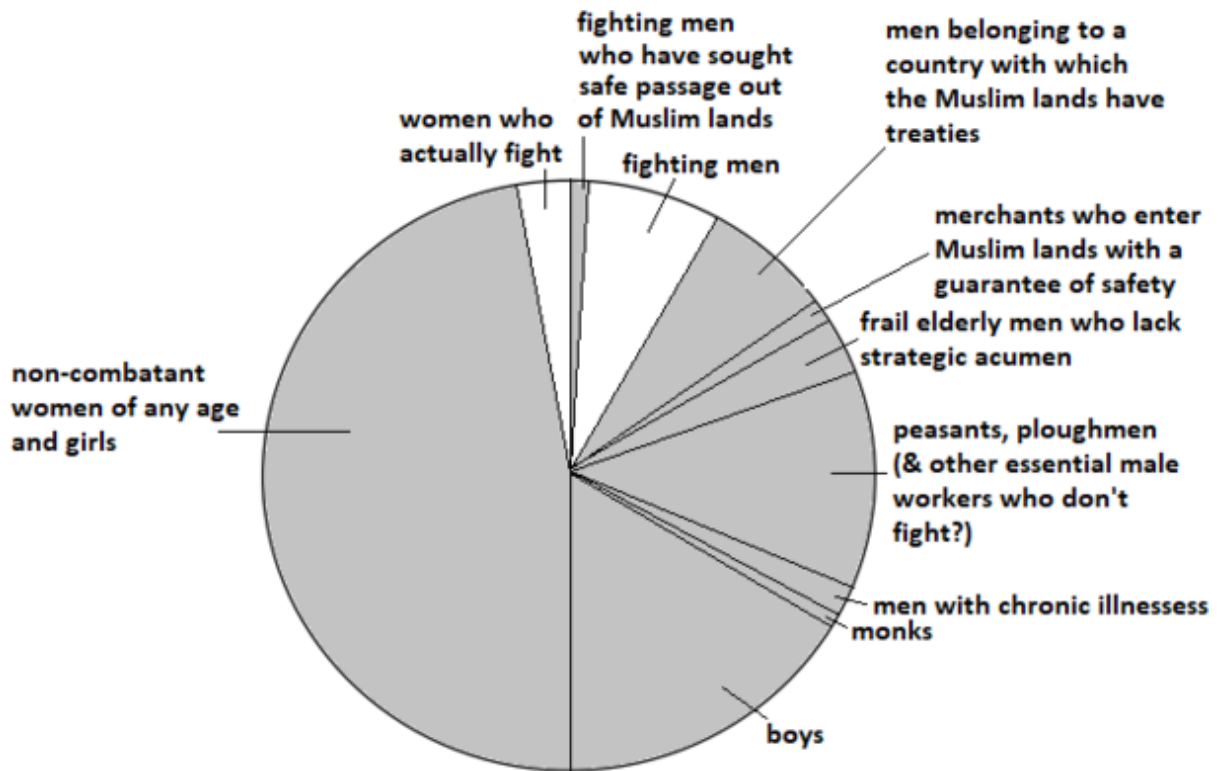
Whether librarians decide to present this information explicitly or to produce a worksheet, such as that in Figure 4, for visitors to fill in for themselves as they make their way round the exhibition will depend, of course, on the target audience.

Beyond Islam

The following quotation might appear like a *reductio ad absurdum* for readers more familiar with the Christian teachings. However, it is a real example from the website of the Institute for Legislative Action of America's National Rifle Association, and shows how almost any ancient book of scripture or philosophy can be twisted to justify a modern political motive:

The Talmud is a huge multivolume collection of commentary on Jewish law. The Talmud takes the legal rule from Exodus and deduces the general principle of rightful conduct: "If someone comes to kill you, rise up and kill him first." […]

The society that the Hebrews were building in Judea and Israel would become one of the two great pillars of Western civilization--the other pillar being constructed by the Greeks. The most influential philosopher in Western civilization was Aristotle, who observed: "As of oligarchy so of tyranny … Both mistrust the people, and therefore deprive them of their arms." […]

Christianity synthesized and universalized the ethical principles of Athens and Jerusalem. At the Last Supper, Jesus told the apostles to carry arms. He asked: "When I sent you without purse, bag or sandals, did you lack anything?"

"Nothing," the apostles answered.

Jesus continued: "But now, if you have a purse, take it, and also a bag; and if you don`t have a sword, sell your cloak and buy one." Luke 22:35-36. (Kopel, 2009)

As with the misinformation put out by Muslim extremists, this quotation from the Gospel according to Luke deliberately avoids setting the words in the context of the ensuing verses that highlight: first, the need to fulfil a prophecy (Isaiah 53:12) in the Hebrew Bible; and second, that two swords are sufficient, which would be ludicrous if the purpose was not one of symbolism but for a dozen men to defend themselves in accordance with the above-mentioned "ethical principles of Athens and Jerusalem" to stand up to tyrants, killing them and their agents pre-emptively, if required.

And so, the scourge of warped online views, even masquerading as wholesome religion and defence of civil rights, can pop up in many places, some that we have now sadly come to expect as routine, while others still have the power to surprise, as when Harry Vaughan, a grade A student and the son of a clerk in the House of Lords, who pleaded guilty to a number of terrorism charges and "was said to have 'fallen down a rabbit hole' of the internet" (Williams, 2020).

SOLUTIONS AND RECOMMENDATIONS

Apart from the hosting of filtering software in libraries and elsewhere, as mentioned above, what else has been done? In 2008, three years after the 7/7 bombings on London Transport, the UK Government published a review into how Prevent funding available to local authorities in 2007/08 had been spent on a range of projects, most aimed at community cohesion. Table 1 below shows the breakdown of the broad activity types, which were estimated to have reached some 44,000 people.

Table 1. Analysis of 261 projects carried out in local authorities in England during the 2007/08 financial year using early prevent funding (UK Home Office, 2011)

Percentage	Activity type	Examples
54%	Debates, discussions and forums	'Safe space' debates to discuss current affairs or grievances
33%	General educational activities	Presentations to schools about Islamic beliefs and culture. Addressing under-achievement of Pakistani boys
27%	Leadership and management activities	Establishment of mosque management committees. Provision of professional media training to key contacts to help them manage media interest around terrorism issues.
26%	Non-accredited training	Active citizenship training for local Muslim women's forum. Training of imams in English language, ICT and British society by qualified tutors.
19%	Arts and cultural activities	Local theatre production which raised issues of extremism in communities
13%	Sports and recreation	Boxing clubs, football clubs

No doubt the variety of activities mentioned were very worthy and achieved some good, but many of them appear both general and tangential. Presentations to schools on Islamic beliefs and culture ought already to be part of the agreed religious education syllabuses in each local authority area. And how, realistically, does learning about the Five Pillars of Islam, or about the heritage food and clothing of Muslims of different ethnicities, make an aggrieved pupil less vulnerable to extremist rhetoric, be it from a Muslim bigot or a neo-Nazi, especially when much of the propaganda that certainly organisations like Al Qaeda or – even more so – the so-called Islamic State put out is aimed at denying that Muslims are in any way bound to reciprocate the basic qualities of good-neighbourliness exhibited by the overwhelming majority of those around?

The provision of safe spaces to discuss grievances and current affairs is admirable in itself; but, unless those discussion identify solutions to any grievances aired, participants will look elsewhere, which includes online and on social media. What extremist grooming provides the vulnerable is a seemingly entire package with a space to air one's grievance, maybe see it amplified and affirmed, and then to receive increasingly hateful and violent suggestions on how to be part of the resolution of the problems that underlie those grievances. Coupled with that comes decontextualised misinformation from sources that one has heard about and been taught to respect, such that the enticing of hate and the use of violence begins to appear justified according to the values that one holds dear.

However, as anyone with a background in library and information services knows, "You can't judge a book by the cover," or by a sentence or two cynically taken from it for a particular purpose. The issue is how to put that truth across to those vulnerable to being harmed by extremism, which includes the families and friends of those arrested terrorism charges. The author of a book on *Educating against extremism* spoke of "instilling critical doubt" (Davies, 2008), by which she meant showing that how what was perceived as the truth was in fact only one of a number of valid answers. With the various forms of Islamic extremism, because they claim to be based on scripture and prophetic and legal tradition, it is easy to teach that it is not only right to sow a seed of doubt if a claim is devoid of any scriptural basis, but to reject it altogether. If a scriptural or a legal text is adduced, is it accurately translated, is the meaning of any of the words used ambiguous, what is its context within the work and historically? It should be possible to put together a small exhibition, perhaps with a short guide or a handful of examples, to demonstrate how the surrounding verses or pages from a section or chapter point to a different, less jarring interpretation; or, as happened with a quotation from al-Qurtubi's Qur'an commentary above, the author explicitly states that he or she disagrees with the statement.

In the absence of an easy go-to organisation like, for example, the Anne Frank Trust in the UK and elsewhere, which provides materials for age-appropriate exhibitions on the Nazi atrocities of World War 2 (Anne Frank Trust UK, 2020), public and school librarians may need to collaborate with mosques, churches, temples, gurdwaras, and synagogues, as well as with academic librarians, in order to get help with texts in foreign languages, and to confirm that their basic understanding of the religion is correct. Another thing that seems too obvious to mention is nevertheless worth stressing, certainly in the case of classical Islamic texts or biblical commentaries, for example, is that the scholars who wrote them did so for people whose years of specialist training made them qualified to understand the arguments made as a whole, not so that literate youngsters with a secondary education could be fed soundbites that went against what the intended readership would have known. Even a library assistant knows not to direct a pre-school child to the adult reference or the local history and archives sections, even though they may well understand many of the basic CVC [i.e. consonant-vowel-consonant] words used in those resources. In an age of ready access to information filtered by algorithms according to prior search preferences, it

may cause offense to someone who confuses the right to have an opinion with a belief that their opinion is right, but it remains true intellectually as well as physically that one has to learn to walk before one can run.

While much is made of deradicalisation of convicted terrorists, "Prevention is better than cure," and so positive activities where librarians research and put together resources that help raise awareness of the importance of learning to evaluate information would be helpful in 'inoculating' young adults intellectually against extremist truth claims. Similarly, when one understands the effect that an individual's arrest, trial and conviction has on his or her family, it is easy to see the relevance of local libraries offering parents, siblings and others access to an expanding, classified (e.g. neo-Nazi, racist, Islamic extremist) database of thoroughly researched extremist quotations in proper context, with easy-to-read guidance, pointing out how scriptures and other texts are routinely turned into misinformation. That way, conversations about the dangers of online radicalisation can be had at home (or at school) with teenage children in the same way as parents might be, perhaps uncomfortably, introducing their younger children to basic facts about sex.

To make it more interesting for history as well as religious education syllabuses in schools and colleges, exhibitions could be linked to past examples of misinformation, and what happened when they went unchallenged, for example, the Jewish blood libel that persists till this day in the form of antisemitism, as do the on-going effects of the dehumanisation of the people of Africa and elsewhere in order to manufacture justifications for their enslavement and transportation.

The financial and human resource costs of such an initiative could be spread, particularly in English-speaking countries, where libraries have a long tradition of common standards for information sharing. By way of comparison, according to an information release from the (UK Ministry of Justice, 2015), six years ago it cost £59,470 p.a. to keep one prisoner in a Category A 'dispersal' prison. This, of course, is only one cost and does not include the costs of the criminal investigation and trial. If exposure to a project whose outputs are distributed not only across libraries in the United Kingdom prevents a single person vulnerable to radicalisation from plotting an offence for which he or she is convicted under the Terrorism Act, the project would have been cost-effective, let alone if it prevented such a person from carrying out an atrocity that resulted in all the hospital, compensation, investigation, court, etc., costs.

CONCLUSION

In the context of counter-extremism strategy in the UK, certainly, we have already seen above how the importance of libraries is recognised. Indeed, there is even a willingness on the part of government to encourage – and perhaps sponsor financially – the development of local initiatives:

These local action plans will identify, prioritise and facilitate delivery of projects, activities or specific interventions to reduce the risk of people being drawn into terrorism in each local authority. Many of these projects and activities will be community based. (UK Home Office, 2017)

As we approach what we hope is a return to some sort of normality, like so many other public amenities that have been mostly closed to the public since the start of the COVID-19 pandemic, libraries need to have activities attract people back into their reading rooms and exhibition areas, and to rebuild their reputation for relevance to the life of the community. Rather than act merely as passive recipients

of filtering software, as envisaged by the limited imaginations and ambitions of a decade ago, libraries need seize every opportunity to assert themselves. Engaging in development of information resources that can be presented in a variety of formats, from a website to poster exhibitions that tour secondary schools, colleges, churches, mosques, hospitals, airports, etc. Anywhere where people can be experience "critical doubt," as Davies (2008) put it, learn how extremism works, and so inoculate themselves against it, if they choose.

ACKNOWLEDGMENT

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KEY TERMS AND DEFINITIONS

Dog Whistle: A word or phrase used by cynical politicians – or extremists – to subliminally catch the attention specifically of those vulnerable to acting on their message, while passing unnoticed by the majority of the audience or readership.

Hadith: A reported saying or action of the Prophet Muhammad, or occasionally the utterance or action of another in his presence that he either approved of or objected to.

Jizyah: A sort of poll tax levied on Jews and Christians living in Muslim lands, in part as a tribute to acknowledge the transfer of their sovereignty to the Muslim ruler, but also in return for their protection.

People of the Book: The Jews and Christians, since Islam recognises that their prophets and messengers were sent by the same God as sent Muhammad, and that their original scriptures were derived from the same celestial 'Book' as the Qur'an.

Prevent: A UK Government strategy to "prevent people from being drawn into terrorism and ensure that they are given appropriate advice and support" (UK Home Office, 2011), which will no doubt have parallels in most other countries.

Sunnah: The customary practice of the Prophet Muhammad, from which ethical and legal rulings may be derived.

Chapter 5
Salar Jung Museum Library in the Heritage City of Hyderabad:
An Analytical Review of Outreach and Engagement

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ABSTRACT

This is an analytical review of engagement and outreach of Salar Jung Museum Library's collection (MSS, printed, and digital). The chapter aims to visualize the benefits of being located in a heritage city, viz., Hyderabad, in India. The method adopted is first to trace impressions of researchers and scholars and second to gather data of its presence in libraries across the world. Tracing such variety and distinctness will open doors for further exploring the impact factors. The original collector, viz., Salar Jung, had open doors for diversity and open mind to welcome all cultural depictions of the world. Its diversity is evident in artifacts and resources that represent samples from East and West. So also is its inclusiveness – the entire collection is without bias of gender, race, or religion. The data analysis shows the engagement in heritage building is reciprocal. A study in the post-COVID era with a larger variety of data (viz., survey, virtual visits, digital impression) will reveal the full picture of reciprocity and will also highlight the actual needs and demands.

INTRODUCTION

The city of Hyderabad with its multicultural ethos was founded by Sultan Mohammad Quli Qutub Shah in 1591. He was the fifth ruler of the Golconda Sultanate which ruled the region in the Deccan. The Golconda Sultanate comprised of the Qutub Shahi kings or *sultans*. The kingdom was founded by Sultan Quli Qutub-ul-mulk who had come to the Deccan originally from Hamadan in Iran. The dynasty ruled from 1518 -1687 A.D with Sultan Abul Hasan Qutub Shah as its last king, when his rule ended in 1687 with the siege of Golconda Fort by Mughal emperor Aurangzeb with his army. The kings ruled both from

the Golconda Fort and Hyderabad at different times. Sultan Quli had rebuilt the mud fort on the hillock which was originally built by the Kakatiyas in 1143 A.D and was called *Mankal*. He strengthened the defences of the hill and built strong ramparts. He renamed it as Mohammadnagar. The Golconda Fort had palaces, mosques, markets, houses, offices, gardens, fountains, public baths and was a bustling centre. The Golconda kingdom extended from Warangal to the Masulipatnam (now Machilipatnam) coast. The need for a new city was envisaged when the fort capital became very crowded. Golconda was large, prosperous and densely populated, its fame of diamonds and printed cloth attracted traders from Europe and Asia, the need for a new city was submitted via a petition to the Sultan by the nobility.

Hyderabad was subsequently built on the gridiron system in the form of a large double cross. The *Charmina*r stands at the city centre, and four roads extend from its portals. The city was divided into 12,000 *muhallas* (precincts). The Charminar is the most famous Qutub Shahi monument. The Sultan built many public buildings and beautiful gardens. The Charminar is flanked by four arches, Charkaman, at a distance of 375 feet from the centre. The arched gateways are called *Sher-e-ali kaman* or *Sher-e-batil*, *Kali kaman*, *Machli kaman* and *Charminar ki kaman*. After studying the plans of Persian cities like Ispahan, Mir Momin Astarabadi the chief architect, made the design for the new city of Hyderabad. The Charminar which was built to commemorate the elimination of a plague also served as a city centre. It was completed in 1592. They were palaces around the Charminar like *Chandan Mahal, Sajan Mahal, Khudadad mahal, Nadi mahal* etc. which no longer exist as they were pulled down by invading Mughal armies. The Jama Masjid, the Mecca Masjid, Badshahi Ashurkhana, the Toli Masjid, the Khairatabad mosque, the Shaikpet *serai* with a mosque and the necropolis at Ibrahimbagh were developed during the Qutub Shahi rule of almost two centuries. The Hussain Sagar with a bund now famous as *Tank Bund*, was constructed and filled with water by Hussain Shah Wali, in-charge of public works during the reign of the Sultan Ibrahim Qutub Shahi. The city had many gardens, reservoir-fountains like the Gulzar Hauz, buildings and streets. During the Golconda times a diamond market thrived in the Karwan area. Jean Baptiste Tavernier was a French diamond merchant and traveller to India in the 17th century, who has left accounts of Golconda. The Goshamahal Baradari is probably the only well preserved palace built by the Qutub Shahis whose construction was started by Sultan Abdullah and completed by the last Qutub Shahi ruler, Sultan Abul Hasan Qutub Shah in 1684. It was used as a *secluded place* by royal ladies at that time. During Aurangzeb's conquest of the Deccan, he installed his son Shah Alam in this palace, which served as the Mughal headquarters in the south. Later, in the early 20th century, the Nizam of Hyderabad handed this palace over to the Freemasons of Hyderabad and Secunderabad and it has been in their care ever since.

After the Qutub Shahi rule ended in 1687, the Mughals ruled the area with the help of *viceroys* who later declared independence. They started the Asaf Jahi era of the *Nizam* rule of Hyderabad-Deccan and ruled between 1724-1948 A.D. They further developed the city with new roads, buildings, palaces and markets. The Salar Jung family were prime-ministers to the Nizams. The Chowmahalla Palace, now a tourist place of interest, the Purani Haveli now housing the Nizam's Museum and the Falaknuma Palace now turned a Taj group hotel are from the Asaf Jahi times. The Residency was also a palace built for Major James Achilles Kirkpatrick, British Resident at Hyderabad, 1798-1805. The Residency at Bolarum, Secunderabad built in 1860 by Nizam IV, Nawab Mir Farkhunda Ali Khan, Nasir-ud-daula, was also for use of the Resident. There were many developments in Hyderabad during the Asaf Jahi rule. The Nizam College was established in 1887 by amalgamation of Hyderabad College and *Madrasa-e-aliya*. The

Mahboobia Girls School started in 1907. The Osmania University was started in 1918. The High Court was established as the *Adalat-ul-aliya* under the seventh Nizam in 1920. A Unani hospital was started near Charminar in 1929, which now houses a hospital-cum-college. A state library, the *Asafia* Library was founded by Moulvi Syed Hussain Bilgrami in 1891, now the State Central Library at Afzalgunj, Hyderabad. The Nizam State Railways was established with new railway stations. Hyderabad had its own radio station, the Nizamiah observatory, established in 1908 and its airline the Deccan Airways. The water supply and management of water was streamlined after the floods of 1908. Based on the report of Sri M. Visweswaraiah, famous engineer, the Osman Sagar at Gandipet and the Himayat Sagar reservoirs whose construction work had started in 1914, were commissioned on the River Musi and its tributary River Esi by 1920 and 1927. The area of Secunderabad, now over 200 years old, was initially a cantonment for troops but now is a part of the twin cities of Hyderabad and Secunderabad with the heart-shaped Hussain Sagar in between. It is named after Nizam III, Nawab Mir Akbar Ali Khan, Sikan-dar Jah. The princely state of Hyderabad-Deccan joined the Indian Union in 1948 after Independence. History enthusiasts and scholars, authors are very much interested in the detailed history of this city with its composite culture, interesting manners, dress and cuisine, its *ganga-jamni tehzeeb* (etiquette) and also the quaint and interesting language called 'Dakhni' which evolved in the Deccan with the mix of Urdu, Telugu, Kannada and Marathi given the regions that the Nizams once ruled. The city has people from all these regions who are now part of its culture. Dakhni has its own repertoire of literature as in Dakhni poetry. The city's industrialisation began around the 1870s and through the administration of different kings and rulers, there has now emerged a busting metropolis which is an IT and pharma hub in India. The city thus has layers of history and is of interest to researchers and the general public as well.

BACKGROUND

The idea of a Museum having a book collection is a normal practice. But a museum also having a library as an integral part of it or as another department is not so popularly understood. Lisa Harms (2010), states in 'A Day in the Life of an Art Librarian:'

It does not occur to most Museum visitors that museums usually have libraries. In fact, until I saw the job opening for my position, it had not really occurred to me either. I now know that art libraries play an essential role in the research of the Museum staff. Additionally, they serve a broad community of researchers from around the world. (p.1)

Given this special trait, this chapter will present its discussion in the same light of Museum and Library as two complimentary aspects - i.e. in the common functions of information collecting and providing to the visitors a service, in an inclusive manner. A little clarification about the structure of the Salar Jung Museum building, it is not the same in providing access to these two entities. In other words, a separate free entrance to the library through the reception, as against to enter the Museum, the visitor needs to buy a ticket from a booking counter.

LITERATURE SURVEY

A survey of the literature is ideally good to compare and contrast the objective of the chapter. However, the present chapter is the first attempt and hence an original approach in presenting the topic. This assertion of originality is based on a preliminary survey of the history of the organization and in published literature, the author did not find any direct study of Salar Jung Museum Library's engagement and promotional practices. Hence, in this survey an attempt is made to find similar studies.

Shankar, and Swamy (2013). identified the City of Mysore in Karnataka to study ways and means of creating awareness among the residents of the city. The advantage they had was the city as a heritage space and place was recognized by the Government. And, the hard task they felt was to create the awareness among the residents. A survey of the agencies engaged in awareness was conducted. Based on the data and observations they identified the factors using SWAT technique. They concluded that there is a need for the regulations to be more detailed, to remove or reduce ambiguities. This article is published in an Engineering journal. Both authors are faculty members, one in Urban Planning, and the other in Architecture. The article has no library related keyword. Museum, as a keyword appears seven times—and only two times in relation to Museum-cum-information centre. Suggesting "Opening an information centre and museum to showcase the city's rich heritage in the heritage area will benefit both tourists and locals". A point that is worth deducting is that the Information Centre or Library is yet to be set up. A detailed study may reveal how is any museum managing information dissemination so far without an information centre? This article is cited by 27 publications and within these 27, seven have library or museum as a keyword-in-context. None is dealing with library and museum together. Again, of the seven citing sources one is published in a library science (viz., Library Philosophy and Practice) journal. Among the others, one each of the citing article appears in a journal whose keyword includes Education, Social Science, Heritage Tourism, etc. "with a large number of journals contributing one article each" (Hubert, 1978). This pattern is called scatter of information is an interesting discussion that can lead to finding which journals form the core in library-cum-Museum and archives as a field of study. This discussion on scatter is not dealt here.

Library and museum collaboration is gaining a new interest. Two major efforts are emerging in this area. First is the establishment of The Institute of Museum and Library Services (IMLS) and the second is a sister organization Reopening Archives, Libraries, and Museums (REALM) - - to reduce the effect of COVID-19 - - is a research project conducted by OCLC, the Institute of Museum and Library Services, and Battelle. (Swogger 2020). A third factor has been an interest in combining all heritage institutions to come together. This is well articulated by Wellington (2013). In addition to the organizational activism, "the development of new technology has created a catalyst for escalating amounts of integrative practice between cultural heritage institutions such as galleries, libraries, archives and museums (GLAMs)". It is worth re-reading where is this collaboration. This thesis concludes that the theorised pathways towards convergence between the GLAM domains are not definitive, but rather are a fluid and dynamic process. This is a process that adapts over space/time and is recursively reflected in, and influenced by, the architecture, people, programming, services and unique integrative ethos present in individually integrated memory institutions" (Wellington, 2013).

On the topic of heritage and collaboration between library and museum, Hong Kong has an excellent ground work (Rahmi, et al 2014). "The Museum not only serves as a unique platform for teaching and learning of the local heritage in Hong Kong, it also contributes greatly to the promotion of community

engagement and social connections." In getting close to Salar Jung Museum Library and a similar organization, this Hong Kong sample is a very close fit, at the best in service delivery:

The HKMM is also equipped with its own museum library, and it is called the CSSC (China State Shipbuilding Corporation) Maritime Heritage Resource Centre. In addition to supporting various research activities carried out by the Museum, this Resource Centre also serves as a central, and yet comprehensive repository for publications, and other archival documents on maritime heritage and history related to Southeastern China. This paper aims to compare the distinctive operational practices, and user needs between museums and libraries (Rahmi, et al 2014).

The literature survey points to the variety of studies. Each of the above examples brings a new dimension. Since the present is an exploratory assessment of engagement, a detailed heritage survey will be required in a future study.

METHODOLOGY

This chapter has the following objectives: First, how the heritage of the City is understood via its collections. And, second, what are the ways of engagement and outreach? Towards reaching the goal, this chapter adopts literature survey method in highlighting some of the significant primary and secondary resources in the Library. Again, as a survey of resources, it is accomplished by an extensive search to discover the impressions or observations of scholars, visitors and writers anywhere. In theory it is good to have focused outlook in identifying such documented observations. Such approach is not considered here for one main reason. And the reason is shortage of time and resources first, to identify the sources and second, to visit specific places for data collection. The COVID lockdown further reduced the idea of reaching, even by emails. Hence a brief sample of library catalogues and books is taken to identify the main trends. A future study will have to be very comprehensive to get the full picture.

SALAR JUNG MUSEUM LIBRARY: PAST AND PRESENT

The Salar Jung Museum and Library of Hyderabad is a part of the rich history of Hyderabad. It is a repository of the artistic achievements of diverse European, Asian and Far Eastern countries of the world. The major portion of this collection was acquired by Nawab Mir Yousuf Ali Khan popularly known as Salar Jung III, who had been a prime minister in the Nizam rule. After Salar Jung III passed away in 1949, the heirs of Salar Jung Bahadur graciously agreed to donate the entire collection to the Government of India. The collection was arranged into a museum which was opened to the public by Pandit Jawaharlal Nehru, the first Prime Minister of India on l6th December 1951 at the *Dewan Deodi* in Hyderabad. Through an Act of Parliament No.26 of 1961, the Salar Jung Museum together with the Library was declared to be an Institution of National Importance.

Dewan Deodi was the ancestral mansion of the Salar Jung family who were prime ministers in the erstwhile Nizam rule. The collection of books and manuscripts was basically developed by the Salar Jung family which is one of the most distinguished in the annals of Deccan history.

The library collection dates back to 1656 A.D but it was given the shape of a library only by Nawab Mir Turab Ali Khan, Salar Jung I (1829-1882) and was further enriched and developed by his son Nawab Mir Laiq Ali Khan, Salar Jung II (1863-1889) and finally by his grandson, Nawab Mir Yousuf Ali Khan, Salar Jung III (1889-1949). The books and manuscripts have been collected over a long period of time. The inception of the collection dates back to 1656 A.D/1067 H. till the death of Salar Jung III in 1949 of around 40,000 books and 8100 manuscripts.

The printed books collection of the library to which additions have been made after the initial Salar Jung Collection stands at 69,000 books, out of which 45,000 are in English, 15,000 in Urdu, 3600 in Persian, 2700 in Arabic,159 in Turkish. There are over 1500 titles in Hindi and over 1300 titles in Telugu. Collection development is a continuous process and new books are constantly being added, mostly on subjects connected with Art, History, Culture, Conservation and Museology.

UNDERSTANDING HYDERABAD'S HERITAGE AND PAST: RESOURCES AT THE MUSEUM AND LIBRARY

Given the cosmopolitanism and character of Hyderabad as already mentioned, its history and culture has evoked great interest among the readers from different countries. The city not only has 400 plus years of history, amazing monuments, but has also been one of the first princely states in India to have its own radio, postal system, observatory, telephone and education for women. Also, it had its own Archaeological department set up during Nizam rule. The records of the city show a very high level of documentation. A healthcare system was in place during the Qutub Shahi times (1518-1687) which had a house of healing called the *Darushifa* where people came for Unani treatment.

How does the Salar Jung Museum and Library help in understanding this fascinating city? A city where people from all communities and different languages have been living for years? It is being achieved through its resources being made available to any history enthusiast. Scholars travel from the U.S.A, Europe and other countries for studying the books and manuscripts housed here. Hyderabad also had a unique miniature painting school which evolved in the Asaf Jahi Hyderabadi court of the Nizams. The museum has a collection of these of which some are displayed in the Miniature Paintings Gallery at the museum.

Library - English Section: The English section covers a variety of subjects ranging Philosophy, Religion, Law, Education, History, Literature, History etc. the number of books in History are over 7000, Indian History 3600, Biography and Travel 2500. The oldest book in English is "General historie of the Turkes" by Richard Knolles, 1641 A.D. the library includes translated works, prints, photo albums and research journals. Old and antiquarian books have also been collected by the Salar Jungs. Some autographed copies include*: Leaves from the journal of our life in the Highlands 1848-1861,* autographed by Queen Victoria and gifted to Mukhtar-ul-mulk, Salar Jung I, GCSI in 1876. Another book is autographed by Sarojini Naidu, *The bird of time,"* 1912.

The books on Hyderabad include a wide array of material including books, Government reports, yearbooks like Hyderabad Affairs, maps among others. The title *Ferishta's history of the Deccan* of 1794 in two volumes is a prized possession of the English section. Other interesting titles on the history of Hyderabad include *Hyderabad under Sir Salar Jung I* written in 2 volumes, by Cheragh Ali, 1885. The book *Glimpses of the Nizam's Dominions* from 1898 is a huge resource on the history of the region with over 600 photographs which include Hyderabad and its surrounding areas which were under the

Asaf Jahi rule period, 1724-1898. The book describes the monuments, the army, the police service, the Nizam railways, the administration and the local population. Report on Famine Relief Works in H.H the Nizam's Dominions, 1876-77 by Palmer George, 1879, The book *Landmarks of the Deccan* by Syed Ali Asgar Bilgrami, 1927, lists all major heritage structures and archaeological remains of the Hyderabad city and its suburbs with its brief history. *Pictorial Hyderabad in 2 volumes* published in 1929 by Krishnaswamy Mudiraj recalls the story of Hyderabad and the life and contributions of its royals and nobles. It is a landmark work, *A history of the administrative reforms in the state* by M. Fathulla Khan, 1935, There are reports like, *Manufacture of Steel in H E H the Nizam Dominion*, by Nawab Ahsan Yar Jung Bahadur, 1940, *Conservation of Coal and Manufacture of Gasoline*, by Nawab Ahsan Yar Jung Bahadur, 1940, The *Hyderabad Academy studies No: 6,* 1943, Report on the operation of H.H the Nizam's public works and allied depts for the year 1293 Fasli by Palmer George, These reports give a reflection of the progress of the Hyderabad state under the Nizam rule. The newer titles which help in understanding the history which has made the city as it is now include: *The end of an era* by K. M Munshi, 1957, *Social history of a caste - the Kayasthas of Hyderabad* by Karen Leonard, 1978, *The chronology of modern Hyderabad 1720-1890,* Andhra Pradesh State Archives, *Hyderabad after the fall* by Omar Khalidi, 1988, *Hyderabad 400 years 1591-1991* by Raza Ali Khan, 1990, *Hyderabad 400 years of science and technology* by M. Burhan Hussain, 1991, *Hyderabad – memoirs of a city* by Narendra Luther, 1995, *Romance of Hyderbad culture*, M.L Nigam, 1997, *Hyderabad - 400 glorious years* by K. Chandraiah,1998, *History of Modern Deccan – political and administrative aspects 1720/1724 – 1948 (Volume I)* by M. A Nayeem, 2000, *The White Mughals* by William Dalrymple, 2004. Hyderabad – portrait of a city, Noopur Kumar, 2005, *Hyderabad – the social context of industrialisation 1875 – 1948* by C.V Subba Rao, 2007, *The Deodis of Hyderabad – a lost heritage* by Rani Sarma, 2008, *The untold Charminar* by Syeda Imam,2008, *Hyderabad haazir hai – writings from the city of the Nizams* by Vanaja Banagiri, 2008, Some other interesting titles which throw light on Hyderabad's history and heritage include - *A guide to the heritage of Hyderabad – the natural and the built* by Madhu Vottery, 2010, *Hyderabad; a biography,* by Narendra Luther, 2010, *October Coup: memoir for the struggle for Hyderabad*, by Mohammad Hyderm 2012, *Legendotes of Hyderabad* by Narendra Luther, 2014, *Hyderabad, British India and the world*, Eric Lewis Beverly, 2015.

A bilingual well illustrated book in English and Urdu. *A princely legacy – Asifiya cuisines*, from 2013 speaks and elaborates on recipes of breads, *biryanis* (rice dishes), *kebabs*, curries, sweets and syrups of Hyderabad. Some of these have influences from North India while some are typically Hyderbadi, an authentic resource for the gourmet and food tourists. Another small but concise book *Daawat-e-Hyderabadi* from 1996 is also on Hyderabad's cuisine.

Library - Reference Section: The Reference section has journals, encyclopaedias, books on Museology and Conservation, Art, Archaeology and Architecture. The oldest reference book is *Historical and critical dictionary* in four volumes by Monsieur Boyle, translated from French to English, published in 1710 A. D. The library has *Asiatic annual Registers 0f 1799-1811*. There are volumes of *Hyderabad Affairs* compiled by Syed Mehdi Ali; a chronicle of Hyderabad. Many important events are recorded which serve as a proof for scholars studying its history. This section houses journals like *Islamic Culture* which has many important articles on the history and culture of Hyderabad-Deccan.

Library - Oriental Section: This section has books in Urdu, Arabic, Persian and Turkish in all areas of knowledge covering various subjects including Islam, Literature, History, Medicine, Poetry etc. The number of Persian books are over 3200, Arabic over 2000. Books on Religion and History number the most and books on Urdu literature number over 2100 covering classic works of prose and poetry. Biog-

raphies form an important part of the collection. The oldest book in the collection is *Tarikh-e-abul fida* in Arabic,1723 A.D which deals with the history of the early Caliphs.

Coming to the history of Hyderabad the section has *Tuzuk-e-asafiya* by Mir Ahmed Ali Khan Moosvi, 1892, *Maser-ul-amra* in 3 volumes by Nawab Shamshudaula Shah Nawaz Khan, 1888, *Haddeqatul Alam* in 2 volumes by Mir Abul Qasim Raziuddin Al Moosvi, 1891, *Yaadgaar-e-Makhanlal*, by Makhan Lal Juyu,1848, *Mahboob-ul-sayer nigaristan-e-Asafiya* by Nawab Aziz Jung Bahadur, 1895, *Kitab-e-shajra-e-Asafiya* by Mouzam-ul-mulk, 1894. Some more interesting titles on Hyderabad include *Qusosyat-e-huzoor Nizam* by Syed Afzal Hussain Kantori, 1907, *Jashn-e-Osmani* by Mohammad Fazil, 1935, *Hyderabad ki talimi Taraqqi* by Abdul Qaddar Sarwari, 1934, *Deccan ki siyasi Tariq* by Syed Abdullah Moudodi, 1944, *Riyaz-e-mukhtariya* by Mir Dilawar Ali Danish, 1942.

Library - Manuscripts Section: The collection of 8100 manuscripts includes various media like parchment, textile, palm leaf, *paper, glass, wood, and stone, different languages such as Arabic, Persian, Urdu, a few of* Turkish, Dakhni, Pushtu, Hindi, Sanskrit, Telugu and Oriya and addresses more than eighty-four subjects. The collection also includes more than one thousand five hundred calligraphic panels and albums of miniature paintings of different schools.

The range of subjects is very wide and includes Medicine, Science, Logic, Agriculture, Calligraphy, Lexicography, Mathematics, Physics, Astronomy, Games, Art, Syntax, Music, History, Poetry, Biography, Rhetoric, Philosophy, Etymology, Ethics, Politics, Travels, Divinations, Holy Quranic Sciences, Theology, Sufism, Law, Dictionaries, and Magic.The manuscripts are related to religions including Islam, Hinduism, Christianity and Zoroastrianism. Some calligraphic panels are incised on glass, and the Museum has manuscripts with excellent nail work. The other calligraphic works are in many scripts, like *Kufi, Thulth, Naskh, Ta'liq, Nasta'aliq, Gubar, Raihan, Shikasta, Diwani, Riqa', Bahar, Tughra, Ma'akus* and in various styles.

The collection of manuscripts in Persian on the history of Hyderabad and its culture include *Tuhfa-e- mukhtariya* a history of the Qutub Shahi kings of Golconda written in 1876 on the request of Sir Salar Jung I, *Tadhkira-e-asifiyah;* a history of the early Asif Jahi dynasty n Nizam-ul-mulk Asif Jah, his son Nasir Jung, maternal grandson, Muzaffar Jung; *Tarikh-e-zafrah*, a history of the Qutub Shahi kings, Alamgir to Mohammad Alam II. Another manuscript *Sawanih-e-deccan* is a gazetteer of the six subahs of the Deccan and the history of the Asif Jahi dynasty from 1724 to 1783. *Tarikh-e-Nizami*, a history of Mir Nizam Ali Khan, Nizam II complied by Mir Alam; *Tuzuk-i Asafi* a history of Nizams of Hyderabad from origin to 1793, by Tajalli Ali Shah, *Tuhfah-e-dakkan,* a history fo the Deccan from the rise of the Muslim power down to 1863, compiled by Ratan Lal. *Sudad-e Haidarabad Dakkan,* a history of Hyderabad from 1853 to 1863, a period under the administration of Prime Minister, Sir Salar Jung I. This work mentions the reforms started by him which had a big influence on the History of Hyderabad. *Mah-nama* is a history of the Nizams commissioned by Mahlaqa Chanda Bai, royal courtesan at the court of Nizam Ali Khan II, Nizam II. The work was completed in 1229/1814 A.D. by Ghulam Husain Khan Jauhar. Manuscripts in Urdu include the *Kuliyat-e-Sultan Mohammad Quli Qutub Shah* who ruled 988 to 1020 H, the fifth Sultan of Golconda who founded the city of Hyderabad and who was a poet in Urdu and Telugu. The work has few paintings of the Shirazi school.This is his *diwan* or collection which consists of *ghazals* (poetry about love, God) and few *qasidas* (eulogies). The library has his *Diwan-e-Sultan Mohammad Quli Qutub Shah* from 1141 H written in beautiful gold worked *naskh* script. Another notable manuscript in Urdu is *Diwan-e Abdullah Qutub Shah* in *nastaliq* script written before 1083 H which is his poetry in one volume.

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Library - Art albums: The library has art albums which are largely illustrated books or collections of paintings and calligraphic panels in the manuscripts collection. This collection includes titles published in the 19th century on *views* of the Deccan region; *Sketches in the Deccan*

by Capt Philip Meadows Taylor, 1837. This source throws light on the architecture prevalent in making royal structures and public buildings. The miniature paintings in the art albums in the Persian collection include persona from the history of Hyderabad like *Munir-ulmulk Haidar Yar Khan Sher Jung,* illustrious *forefather of Salar Jungs* smoking a ''huqqa'' (hubble bubble), Deccani school, from 12th/18th century. *Munir-ulmulk and his son seated on a chowki* and his son Ghuyur Jung facing him, with an attendant holding a flywhisk, Deccan school, Late 12th/18th century. There is another interesting painting showing *Ruknudowlah Bahadur, the prime minister of Hyderabad seated on a masnad smoking a huqqa*, Deccani school, 12th/18th century. *Mir Nizam Ali Khan and his minister Arastu Jah* are seen together with the aged Nizam on a *masnad,* Deccani school, from 13th/19th century. *Munir-ul-mulk and Chandu Lal*, prime minister of Hyderabad, where he is seated on *masnad* and Raja Chandu Lal is offering the *nadhar* of gold mohurs standing in front. Behind him is his son Bala Pershad, Deccan school, Mid 13th/19th century. A Paigah nobleman Tegh Jung Shams ul umara standing with mace over his right shoulder is also there, also the *darbar of Nizam Ali Khan,* also *painting of Sikandar Jah*, the third Nizam. Also in the collection is *Khututi-e-tarikhi,* a collection of historical letters of Maharaja Chandu Lal and officers of the East India Company written between 1833 and 1837 A.D. These paintings throw light on the dress and manners and life of the time of the Asaf Jahi rule.

Library - Photo albums*: Monuments and regal visits:*The Golconda kingdom including the Hyderabad-Deccan saw many visitors from different places. Many travellers have come to this region on their travels to the Indian subcontinent. During the Qutub Shahi reign, diamond merchants used to come to Hyderabad. The famous merchant Jean Baptiste Tavernier has left accounts of his travels who visited Hyderabad twice in 1648 and in 1652. Some other European travellers include Jean de Thevenot who visited in 1665-6. Francois Bernier visited in 1687. The library has copies of travelogues written by them. During the Nizam era, the Viceroy and Governor Generals of India appointed by the British Government visited the state of Hyderabad-Deccan. Lord Elgin in 1895, Lord Curzon in 1902, The Prince of Wales in 1906, Lord Minto in 1907, Lord Hardinge in 1911, The German Crown Prince Friedrich Wilhelm in 1911, Lord Willingdon in 1933, Lord Linlithgow in 1938; have visited as state guests. The library has photo albums of the royal visits photo-chronicled by Raja Deen Dayal (b. 1844 –d 1905 A.D), the official photographer to the Nizam and later albums by his firm Raja Deen Dayal and Sons. Raja Deen Dayal has also photographed many monuments of the region which serve a proof of the art and architecture for historians and researchers. The photos of the monuments which include Golconda views, the Charminar, the Qutub Shahi tombs among others are of great interest to the local press, the history enthusiasts, scholars and conservation architects. The photos give an idea about the monuments as they looked at the end of the 19th century and the royal visit images show the protocols followed during reception of state guests during the era on the VIth and VIIth Nizam of Hyderabad.

Museum - *The* Founders *Gallery:* The Founders Gallery at the museum is a dedicated gallery to showcase the history of the founding family of the museum. It not only has portraits and the family tree but also has portraits of the Nizam rulers to whom the Salar Jung family served as prime ministers of Hyderabad. The mementos received and personal belongings of the Salar Jungs are also displayed here. The gallery is a reflection of times gone by and the lifestyle of the noblemen of Hyderabad. There is also displayed the *Masnad*s or thrones of the Salar Jungs. The gallery has a Monteith presented by Albert Edward, Prince of Wales to Sir Salar Jung I, Memento presented by the Duke of Edinburgh to

Sir Salar Jung I,Casket presented by Corporation of City of London to Sir Salar Jung I, Black English Minton porcelain vase with picture of Salar Jung I, Memento presented to Salar Jung II by Anjuman-e-Islamia, Secunderabad in 1881, photographs of Salar Jung II Nawab Mir Laiq Ali Khan seen with Sir Viqar-ul-Umra, Nawab Zafar Yar Jung, Maharaja Kishan Pershad, Nawab Mehboob Yar Jung and Sir Afsar-ul-Mulk Nizam VI Nawab Mir Mehboob Ali Khan and Nawab Mir Laiq Ali Khan with Nawab Fakhr-ul-Mulk, Nawab Mir Saadat Ali Khan, Nawab Mehboob Yar Jung during a hunt.The gallery has an image of Salar Jung III as a young child, Salar Jung III School certificate, Salar Jung III football team, Salar Jung III in official dress, Salar Jung family crest, Salar Jung III in Egypt, also images of the *Dewan Deodi* facade, Salar Jung III wearing medals among others.

This gallery also showcases portraits of the Nizams to whom the Salar Jungs served as prime ministers. There is genealogical chart of the family as well. Some important pieces of tableware used is on display which gives an indicator of the social manners of the times gone by.

Museum – Publication: The museum has brought out 40 volumes of its *Bi-annual Research Journal.* These journals have several researches on Hyderabad and throws light on its art, architecture, manners and culture. The journals are available for study in the library for the scholarly community. To name a few articles on Hyderabad history and heritage – A brief history of the Salar Jungs S.M. Jawad Razvi, 1976, *Charminar –its historicity and archaeology* by W.H Siddique, 1989, *Cultural synthesis in the Qutub Shahi kingdom* by Sadiq Naqvi, 1983, *Dakhni – its origin and development*, A.S.M Quadri, 1983, *Historical mosques of Hyderabad* by N.N Krishna Sastry,1984, *Chequered career of Chudderghat- men, matters and mansions* by K.S.R Murthy, 1989, *Asaf Jahi art – visual documents of social history* by Dr D. N Varma, 1987, *Development of Unani Tibb during the Asaf Jahi period*, K.A Shafaqat Azmi and M.M Ali Khan, 1987, *Gateways and kamans of Hyderabad city*, by Mohammad Abdul Qaiyum, 1989, *Court life of Asaf Jahi period* by Dr. Hasnuddin Ahmed, 1991, *Hyderabd in the early 19th century* by Dr. *Vandana Kaushik, 1991, Deccani* arts and crafts during the Asaf Jahi period by Dr. D. N Varma, 1993, *Biographical sketches of Salar Jungs* by Mir Taqi Ali Khan,1995, *Hyderabad – old architectural glory* by Abid Hussain Khan, 1997, *Diamond trade in Golconda*, K.S R Murthy, 1999, *Himroo fabrics of Hyderabad* by Dr. Suguna Sarma, 1999 and so on.

- *Collection Management* – New books have been added to the library since it moved to the new building from *Dewan Deodi* where it was kept till mid 1968. Some titles which have been included as part of collection development are*Hindu view of art* by Mulk Raj Anand, 1957, *Modern art movements*, Trewin Copplestone,1971; *the Marwar murals* by R. A Agrawala,1977, *The Oriental obsession: Islamic inspiration in British and American art and architecture 1500-1920* by John Sweetman,1991, Krishna: *living God of Braj* by D. Anand,1992; *Terracottas of North India* BY S.C Kala,1993; *Unique art of Worli paintings* by Sudha Satyawadi,2010; *Live textiles: a practical approach to understand fabrics* by Akshay Tholia, 2009, *Made for Mughal Emperors: Royal treasures from Hindustan* by Susan Stronge,2010, *The Maharajas and their magnificent motor cars* by Gautam Sen, 2011; *Princes and painters in Mughal Delhi 1707-1857* by William Darlymple and Yuthika Sharma, eds, 2012; *Glass making in England* by J. Harry Powell, 2014 among many others.
- *Digitisation* - 28,000 rare books of the library have been digitized and are on intranet for access by users of the library. The titles are being uploaded on indiaculture.gov.in, a portal developed and managed by Ministry of Culture, Govt. of India. Digitisation gives access to all people across

the globe cutting across national boundaries. The manuscripts are also being digitized for easier access by readers.

- *RFID* Implementation - For the security of the books RFID system has been implemented integrating with the library software KOHA.
- *Service to Readers* - The library has been serving scholars and readers from different countries for the last 70 years through its reference and other services and moves on to the future with existing books, journals, more new titles and e-resources. The books and resources on Hyderabad will be further utilised by the reading public to discover and understand un-discovered facets of this heritage city and enrich the existing knowledge.

COMMUNITY ENGAGEMENT: THE PROCESS AND PRIORITIES

The Salar Jung Museum Library's community engagement is performed in many ways. For instance, its outreach and media relation program, partnership with schools and other organization, its official publications, and its periodic reports.

Due to shortage of time and resources, in this chapter only a review of the impressions of visitors, and the levels of outreach by way of promotional materials and publications will be discussed here. A future study will be necessary to analyse the types of engagement and its impact on the planning of new programs

The presence of Salar Jung Museum Library, its importance and impact is evident and well documented in many global sources, and represented in both east and west. A few quotes from the published sources will be appropriate.

Diksha Dhar (2018) in a research article published in *International Journal of Research in Humanities, Arts and Literature*, observes,

Salar Jung is an art museum…The Indian art objects comprise of stone sculptures, bronzes, wood carvings, miniature paintings, modern paintings, ivory, jade, textiles, metal ware, manuscripts, bidri, arms and armour, utility ware etc. The catalogue of the Salar Jung Museum notes 'all human life and cultural endeavor could be represented by exhibiting manufactured articles (p.1).

Diversity and inclusion in a composite culture, such as, the city of Hyderabad is its main story of heritage and Salar Jung Museum is its most popular depiction. This is well noted by Goud (2004):

The paper describes diverse collection of Indian mythological figures in the Salar Jung Museum, especially the images of Vinayaka (Vigneswara or Ganesa), the Lord of Remover of Obstacles, in different media describing its artistic and thematic points of view. Thanks to Salar Jung III for having collected numerous images of most of the Hindu deities in different media especially the images of Ganesa. (p. 3).

In another publication, (Goud & Sarma, 2012), is a note appreciating the progress:

The Museum has today developed into a meaningful, creative, cultural Institute, which collects, preserves and interprets the manifold varieties of art exhibits, manuscripts, through its exhibitions, researches,

lectures, seminars and publications. This volume includes papers presented by distinguished historians, museologists, archaeologists, and art historians during the Seminars…(p. 1)

Nsaf (2019) in an analysis of the impact of the heritage institutions, especially of Salar Jung Museum as an exceptional space that is most popular, and states:

There is no data on total visitors in Indian museums. The Ministry of Culture's annual report of 2017-18 provides visitor information for eight government museums, and twenty-five science centres under the National Council of Science Museums. None of the museums reach the mark of 1 million except Salar Jung Museum, Hyderabad with 1.2 million annual visitors and Victoria Memorial Hall, a twentieth century marble edifice built in the memory of Queen Victoria, now converted into a museum, that has over 3.6 million visitors.

Salar Jung Museum's value among heritage institutions, on the global map, is obvious from the recognition and appreciation it received from UNESCO. According to the Legal and Policy Framework for Promoting Equitable Access to Documentary Heritage: Report Submitted to UNESCO by National Mission for Manuscripts, India:

The Salar Jung Museum Act, 1961 declares the Salar Jung Museum, together with the Salar Jung Library at Hyderabad, to be an institution of National Importance and establishes the Salar Jung Museum Board for the maintenance and the administration of the museum. The Board has the duty to manage the museum efficiently and plan, organise, promote and implement programmes for the development of the museum and also provide for instruction, research, learning and dissemination of knowledge in matters connected with the museum and the library. (p. ?)

On 'Reaching the Community' in the words of the Director of Salar Jung:

The Salar Jung Museum is primarily an art museum visited by more than 4000 people each day. In view of its position as an institution of national importance and the most popular museum in the country, the museum has been innovating and experimenting for many years with a series of educational and cultural programmes to enlighten the public and to encourage the direct involvement of the community in museum activity. Training courses on arts and crafts are a popular activity along with mobile exhibitions and special programmes for handicapped people. The aim is to cater for all classes of society, intellectual, illiterate, and school and college students. (Nigam, 1987. P.1).

A very good description of engagement, by entertaining, by involving and by adapting appropriate method and medium in education of the community members is well articulated. This description appears in a doctoral thesis is worth noting here. Observes a scholar:

The museum organizes temporary exhibitions periodically on various themes and efforts are being made to make them more aesthetic, educative and informative. The museum also maintains a 'Mobile Exhibition Van', publishes guide books, brochures, research journals, and books on selected subjects in English, Hindi, and Urdu languages. Seminars and workshops are also being organized on special

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occasions such as Birthday celebrations of Salar Jung III, Museum week, Children's week etc. as part of its educational activities. (Rafat, 2010)

Interestingly, while the above is a very good documentation, the mention of library by the same scholar, in one sentence, without any such visualizations, as follows:

The Salar Jung museum also possesses a huge library consisting of nearly sixty thousand books, manuscripts, journals etc., and it is a monument to the love of learning of the Salar Jung family. (Rafat, 2010)

As one of the museums of National Importance in India, the Salar Jung museum is meant to function as a cultural centre through its artifacts, exhibits, research projects and other planned activities. Historians of the coming age will find it fascinating if someone documents meticulously little details of the Museum:

After the demise of Salar Jung-III, the vast collection of precious art objects and his Library which were housed in "Dewan-Deodi" the ancestral palace of the Salar Jungs, the desirability of organizing a Museum out of the Nawab's collection dawned quite soon and Sri M.K. Velodi, the then Chief Civil Administrator of the Hyderabad State approached Dr. James Cousins a well-known art critic, to organize the various objects of art and curios which were lying scattered in different palaces of Salar Jung III to form a Museum." (Museums & Antiquities, Ministry of Culture, Government of India, n.d.).

Social, cultural and educational historians and so also experts will find the above quote, as in the cited sources worthy to build a whole picture of the time and tide. While history without dates and context of any activity/event, as in most of the above anecdotes, yet it will definitely help in many ways. A historian, then just like a detective will have to look around for a visitor book or an oral historian to connect all missing heads and tails.

In the next step of tracking the imprints relating to community engagement, one way to move ahead is to look back and see what promotional or publicity or marketing resources exists. Without digging deep anyone who has visited libraries, archives or museums is aware of the age-old trend of compiling a hand-written or printed catalog of the collections. For example, Salar Jung Museum Library's collection includes a number of catalogs of its own resources, and of resources of sister libraries wherever they exist. In today's age of information local resource are more easily found in a remote corner of the world. A total of 105 works, publication that appeared or were transformed during the years 1950-2019 (in original paper or in other formats) of Salar Jung Museum are listed in the OCLC's World Catalog (2021), "66 works in 105 publications in 3 languages and 712 library holdings." (WorldCat, 2021a) WorldCat, Salar Jung Museum Library Collection in world libraries.

The search result shows that the collection is in three languages (i.e., one publication is in Urdu, one in Arabic, and the remaining titles are all in English. And, a word of clarification is necessary to show the differences in the number of titles (viz., 66 works) and total holdings (viz., 105 publications) and 712 holding in libraries worldwide (.e, members of the OCLC network). One possibility is that the 66 works are either by number of works translated; or are in more than one formats. A search in the WorldCat using keywords, Salar Jung Museum, shows that 12 different formats.

A detailed analysis of all the above titles to check its accuracy on the formats and holdings of different libraries and so on is a project by itself. If taken as a project, its aim can be to assess the level of outreach that is being achieved in its access to a global audience. The other part of the project can be to capture

data about the pattern of use in 712 libraries that are reportedly able to catalog, and make it discoverable across the software and hardware platforms. The outcome will be to ascertain the problems in storage or delivery, gaps in the respective libraries –because obviously not all the 712 libraries have all the copies of the 65 works. A regional and global uniformity can be thereby planned for better engagement and better outreach of this heritage resources.

In terms of publicity and public relations, the Salar Jung Museum and its library have been systematically engaged in producing educational programs, as mentioned above, and producing educational resources. Both these programs are on-going. For examples the following is a brief list of documents. These are produced for outreach and engaging the communities:

- Salar Jung Museum souvenir. (1951); --not listed and has no citation in Google Scholar
- Salar Jung Museum souvenir. (2014); -- not listed and has no citation in Google Scholar
  A brief guide to the Salar Jung Museum. (1966); --not listed and has no citation in Google Scholar
  Nigam, M. L. (1977). *Salar Jung Museum*: *Guide Book* – listed but no citation in Google Scholar.
- *Journeys in* art *through the Salar Jung Museum* (1971); -- not listed and has no citation in Google Scholar
- *Salar Jung* Museum *Guide book* (2007) -- not listed and has no citation in Google Scholar
- Memories of great personalities. (1961). - not listed and has no citation in Google Scholar

Interestingly, all of these titles are listed in the WorldCat. That is to say, produced locally in Hyderabad, these documents were available globally since a long time. Internet facilitating this dissemination is not surprising, but being already in place the respective countries is amazing in terms of outreach and reach out. And, as seen in the above list by formats, more valuable is the fact that nearly 10% to 15% (as online, ebooks, etc.) are already set to be accessible in virtual domain, in a pandemic COVID era.

The above data analysis, qualitative and quantitative, shows the engagement in heritage building is reciprocal. Reciprocal because the impressions of researchers and scholars directly shows their engagement. They appreciate and recognize the value of the collection. And presence of publications and its accessibility facilitated by respective libraries is another way of recognizing and appreciating its value. In other words, so many libraries are not just storing the collection, they are doing at least three more things. First, they have digitized the bibliographic data, at their own expense. Second, they have facilitated its access via the online interface. Third, with the arrangement with OCLC's WorldCat they have networked with so many libraries. In short, these publications are receiving publicity via so many other networks.

Statement of services provided to each citizen/client group separatel:

- The Museum has a Reception Counter at the Main Entrance gate. A display board showing the layout plan of the galleries spread over in all the three buildings.
- At the entrance of each floor a detailed lay out plan of the galleries located in the floor are placed.
- At the entrance of the Founders Gallery of the Museum "Museum Information System" with 55" monitor is placed for the benefit of the visitors.
- For the guidance of the visitors a help sheet "Journey through Salar Jung Museum" depicting brief of the Museum is available for sale in the Sales Counter.
- Signboards showing the details of Gallery No. with photograph of the gallery view are available in each corridor.

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- Informative and attractive multi-colour tickets have been introduced with a brief and sketch plan of the Museum.
- Descriptive labels on important objects displayed in the galleries with relevant photographs.

Details of activities of the Salar Jung Museum:

- To effectively engage a global audience in the appreciation of decorative arts collection of Salar Jung III through its exhibitions, programmes, publications, and other related activities.
- To educate people about the rich cultural heritage of India and other parts of the world, while creating a memorable experience.
- To make the Museum a centre of excellence to scholars and researchers through the Museum Library.
- To create awareness among the children about importance of Museums through various entertainment programmes and competitions.
- To entertain children through its Children's section which has become popular as a place of enjoyment for children.

The above illustrates the on-going programs, first to partner with community groups, second to engage the community and third inculcate in children the value of heritage in history (for connecting the past with the present) and in day-to-day life. (for social empathy and learning how sacrifice of one leader continues to bear fruits forever).

A future study will take into consideration the COVID and post-COVID challenges. The current preliminary study will lead to a comprehensive study of the use, user and usability of the collection. It will also include manuscripts, printed and digital resources to get a full picture of type of engagement.

CONCLUSION

An attempt has been made to highlight the library and museum, as a heritage preservation and service providing institution. Also its role in understanding the history of the heritage city of Hyderabad. During the Covid period, the museum has intensified its outreach and has been posting information on the social media, long before COVID-19 forced all shutdown.

On an average, 15 lakh visit the museum per month and the number goes up to 25 lakh during summer vacation. This year, however it has been a damp squib. A number of schools send their students to the museum which is now not possible said a senior official of the museum…. Many books from the Salar Jung Museum, including a few rare ones, are available online on India culture portal. This happened during lockdown and we are active on Facebook, Twitter and Instagram catering to art lovers.(Dailyhunt. 2020).

In terms of outreach and community educational programs, the system is well prepared to initiate more virtual presence, to meet the demand during COVID-19 lockdown.

In terms of further analysing the subject, there is a need to use qualitative measures to assess the collection in two contexts. First, is its diversity. This will assess the level of cultural depictions of the world – to get a clear figure about how much of the coaction is Western and how much is eastern. This

is not just to get the numbers. Rather it is to identify the strong and weak areas in its representativeness. Second, is its inclusiveness by gender, race or religion. A quantitative study is required to know the total collection by each of these themes. A qualitative study is required to identify which of these are heavily used. In terms of heritage of the City and its understanding by the visitors and researchers, and the use or non-use must then be to find what types of data discovery is needed for a balanced collection and a user-friendly as well. A study in the post-COVID era with a larger variety of data (viz., survey, virtual visits, digital impression) will reveal the full picture of reciprocity and will also highlight the actual needs and demands.

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Chapter 6
Community Engagement Through Extension and Outreach Activities:
Scope of a College Library

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ABSTRACT

Extension and outreach services of libraries, archives, and museums (LAM) are to be essentially considered as an important aspect of social and ethical responsibility of an institution towards the society. An academic library, especially a college library, has immense scope for engagement of the community constituting the stakeholders of the institution for participation, involvement, skill development, and enrichment as well as the individuals outside the institution, ultimately towards inclusion, empathy, and compassion for the society at large. Exemplary evidences of the opportunities and accomplishments of a college library with special reference to the extension and outreach activities of Sir Gurudas Mahavidyalaya, Kolkata, West Bengal, India are provided. Innovation, collaboration, communication, creativity, and effective employment of ICT tools are the keys to successful execution.

INTRODUCTION

A library, archive, or a museum (LAM), has a social responsibility to engage the community. A community-LAM relationship is vital in the progress of society at large. The library, museum, or archive (LAM) and the community are interdependent entities. The understanding is essential that the community within the institution or organization extends its hands towards the community where the institution ensures its existence and vice versa.

The requirement of a community varies according to the demography. The needs of the people of India may differ as compared to any other country. Understanding the requirements of the community should

be given priority before planning long-term and short-term programs. Therefore to provide support, customized for the different categories and composition of the community, understand its requirements.

For successful execution, actualization, and implementation of the programs, the institutions need to visualize the outcomes.

College libraries, university libraries, and public libraries differ in their objectives.

A public library has its accountability for all kinds of users and the community. Academic libraries have limitations in the accessibility of their resources and services for the people. However, the community needs these institutions for diverse social requirements. Despite its accessibility restrictions for its resources, a college library can engage the community through various avenues.

Since libraries are at the heart of every academic institution, immense scope help involve, engage and cater to the community. A college library has innumerable possibilities for effective community engagement through extension and outreach programs.

There are innumerable ways to actively involve the students of the academic institutions, especially for a college. The active engagement of the students increases the student's critical thinking, problem-solving, and design thinking capabilities while addressing diverse issues. They develop social skills, communication skills, team spirit, and attitudes to help each other. They also acquire and share knowledge. They gradually transform into socially responsible citizens. Outreach programs can also sometimes be called extension services. Planning and execution of extension and outreach activities require a coordinated effort of the institution. Planning of extension and outreach activities also requires effective collaboration with other institutions and people.

To sum up, with the essential requirements of community engagement activities, it can be assumed that,

- Every program or activity must have a set of objectives and a strong message towards the community.
- The extension and outreach activities have a potentially positive impact on the community at large.
- "Higher education institutions" should support each other for the execution of extension programs and activities.
- Avoid repetitive and monotonous execution of activities.
- Planning and implementation should actively involve the stakeholders.
- The extension activities having collaborations with other social institutions and agencies ensures better execution of the activities.
- Implementing the activities must ensure maximum possible engagement, involvement, and interaction of the community.
- The librarian, faculty, and students may need to learn newer skills and techniques.
- The librarian, faculty, and the college authority must encourage activities that can enrich the student community.
- An institution must work to improve the scope of reaching out to individuals for the benefit of society.
- A constant reciprocation of community has to be the desired goal of an institution.
- Communication, innovation, and creativity are the parameters for successful community engagement.
- Creative ideas and thinking are required for problem-solving, ensuring community participation, ensuring community involvement, ensuring community development, social networking, and ensuring community as social capital.

BACKGROUND

- **Scope of the Academic Library:**

The literature review and study about community engagement by libraries mainly covers the scope of public libraries. According to Sidorko & Yang (2011), it is often a common perception that public libraries have ways to reach the community and serve the community at large. The limitations of the academic libraries are also evident in the study of Sidorko & Yang (2011). Case studies of extension services by "university libraries" are many in the literature search. Extension and outreach programs of college libraries are not many. Community wellbeing comes within the purview of college libraries. Academic libraries have no less scope in providing services to the community. Vijesh & Mohanan (2018) also indicated that it is a common expectation that a librarian or a public library is the catalyst for library outreach programs. Academic libraries can fruitfully contribute to society. Academic libraries have resources and services for the people without distinction to class, creed, gender, or sexual orientation, says Vijesh & Mohanan (2018). Promoting literacy among the communities will help the libraries to become true community centers and people's universities. (Vijesh & Mohanan, 2018).

- **Collaboration is an essential parameter for positive impact on the campus and the community:**

Collaboration is an aspect of community engagement. Motivating and orienting the academic libraries towards extension and outreach services is by itself a collaborative effort. Team effort and attitude can have positive accomplishments better than individual efforts to accomplish the same. (Hales, Ward & Brown 2009). They emphasize the importance of collaboration, teamwork, and partnerships to meet the goals.

Campus-community partnerships or interrelationships can have positive impacts on the campus as well as the community. (Bringle & Hatcher, 2002). Stover (2016) emphasizes that community partnerships and civic engagement have a relationship with higher education. That is why societal challenges have to be taken into consideration by the academic libraries.

According to Yates(2014), service learning is part of the mission of academic libraries. It represents the core values of the mission of academic libraries. The service-learning allows the students to work with people of different and diverse socio-cultural and economic backgrounds who share mutual goals. "Service-learning" for the students of an institution is learning about democracy, social justice, develop perspectives. Applying real-world skills are required for community engagement. It improves commitment towards social responsibility. Service learning builds the foundation of lifelong -learning. The learning outcome of service-learning opportunities includes a student's capacity to understand diverse human beings, enhanced critical thinking, and community engagement skills. The students shall get to understand their roles in the workplace.

- **The Essential Contribution of a Librarian for Community Engagement:**

Conner & Plocharczy (2017) emphasizes that community outreach is an emerging field in academic librarianship. Academic librarians can have an impact on their communities through creative collaboration with other campus units. Through the case study at "Florida Atlantic University," the idea is shown. Conner & Plocharczy (2017) have mentioned that librarians can employ their creativity through innova-

tive pedagogy, multidisciplinary teaching, and other skills. Employ their professional research outcomes along with finding scope for collaboration using their creative pursuits.

Therefore the essential role of a librarian for effective community engagement is as follows:

- Conceptualize and frame objectives to address the requirements of the community.
- Do personal and professional development to address the change in requirements of the community and ensure social engagement.
- Strategically conceptualize, design, and implement innovative approaches to integrate learning resources with teaching-learning and other services.
- Develop skillsets for effective use of the avenues of ICT for better execution.
- Consider the scope of collaboration for better execution of extension and outreach programs.
- Create an atmosphere of student participation to cultivate and nurture values to give their best for society.
- Identify the outcomes of the services for increasing the satisfaction of the community.
- Support for human resource development.

The scope and interpretations of the professional trends of librarianship by Conner & Plocharczy (2017) can guide librarians to adopt new ideas. They can understand the future for better participation in community-based services. "Academic librarians play an intrinsic role in meeting the mission of the society to create a safe and equitable educational environment to educate socially responsible citizens," says Vijesh & Sreejith (2020). That means the scope of academic libraries in community engagement needs more exploratory study. The college librarians must communicate about how far they can take up extension and outreach programs. How far they have implemented such programs can be mentioned. Whether they have been able to overcome the limitations must be said. The sense of social responsibility helps the information professional be concerned about the social impact of community engagement programs.

- **Academic Library as an Innovation Hub:**

Mathews & Harper (2019) emphasize that libraries can transform into collaboration and innovation hubs that help and support community development. Flash & Allen Et.al. (2017) explores the challenges of the Big Orange STEM Saturday (BOSS) program. Big Orange STEM Saturday (BOSS) is a sustainable model of outreach. The program aimed to create a bridge to serve as a connection for providing an experience of STEM in higher education to the students. This approach aimed to create a space for experiencing STEM outside the school classroom for enrichment and innovation.

- **Understanding the Requirements of a Community:**

Depending upon the needs, a library can take initiatives for community engagement (Singh, Mehta & Sikes, 2021).

On the note of interrelationship, mutual goals, and benefits, and academic library aims for academic collaboration primarily for resource sharing. It creates a network for resource sharing within the academic community. Extension and outreach services of academic libraries aim at resource exchange, knowledge exchange, and skill exchange. Student-centric programs are undertaken by the libraries also.

An academic library must consider different communities according to its strata while framing the extension and outreach programs. "Book delivery services" of a library or through "educational programs" a library can't reach the illiterate people. They have to undertake different activities under extension service programs like exhibitions, puppet shows, drama, local festivals, story hour, book display, reading circle, mobile library, adult education program, etc. help the illiterate people of the society. The suggestions shall create awareness of the community, suggested Borgohain & Nath (2020).

The year 2020 has witnessed a global pandemic. The evidence-based community engagement activities during the Covid-19, by the academic libraries, especially college libraries, are scarce in the literature. The services during the pandemic by the library professionals are worth mentioning. There is a sea change in the approach for community engagement during the pandemic. Awareness campaigns by the libraries in Nigeria by Bhati & Kumar (2020) show the various roles of library professionals during the Covid-19" pandemic. The library professionals can support the entire community. Their scholarly pursuits and endeavors help. The library professionals can find out and deliver information according to the requirement of the user. Library professionals can act as information disseminators. They are the organizers of knowledge and aggregators from the information pools. Library Professionals can support with links for the required information. According to Bhati & Kumar (2020), the study shall help library professionals to improve their skills. The article by Bhati & Kumar (2020) invokes the necessity of prompt response to societal requirements. Exploring the newer scope of rendering services to society is possible when the situation demands.

The expected outcome and the actual feedback or outcome may be the same or different for an institution. Newer and newer scope of extension and outreach services with varied goals and objectives need to be framed by the higher education institution libraries is obvious. An academic library has the potentiality to render better services, considering the quantitative and qualitative requirements of the community in the present intellectual and technological dynamics of the era.

Exemplary Evidence of Extension and Outreach Activities of a College Library

A few of the extension and outreach activities of Sir Gurudas Mahavidyalaya, Kolkata, have been given as evidence of the extension and outreach services of a "college library."

The activities, services, and projects have short-term as well as long-term goals. Those served the local community and are beneficial for the faculty and student community of the institution. The extension and outreach activities under the initiative of the college library were collaborative. Those served as a connecting link between institutions and individuals. The programs solved the social, educational, and environmental problems relevant to the community. Students of the college got actively engaged and involved in such activities. The potential benefit of the programs for the institution itself is the students and faculty got benefited from the program. The students of the college develop socially sensitized during active involvement in these services as student volunteers. The activities have received positive feedback. With its success in engaging the different categories of people, the activities are encouraged. The objectives are well executed. The Extension programs socially sensitized the students of the college as well as have extended service to the community.

Some programs with active use of information and communication technology have been provided to serve as an encouragement for the college libraries. Those are collaborative ventures towards campus and community engagement. The college libraries can undertake different community engagement programs.

The college library works for community inclusion through different avenues within limited infrastructure and funds. It can motivate other college libraries.

1.   Book Festival (January 2013)

a. **Objective:** The "book festival" was organized by the central library, as a part of the "National Social Service Scheme" "special camp" 2013. The objective was to reach out to the community to introduce the college library and its scope with the adjoining schools of the locality. The library wanted to establish a connection with the other colleges for resource exchange. Active involvement and participation of the students to know about the library in an informal setting was an expected outcome. The book festival tried to integrate book displays on a multitude of subjects. The books and academic papers published by faculty and students in different refereed journals were to be displayed. The archive collection of institutional publications was to be displayed. The library facilities were to be explained through audio-visual lectures. Eminent doctors, social workers were invited. People holding important administrative positions in universities were to be present. Different educationals and social discussions were expected to be possible. In an interactive atmosphere, students can communicate with eminent personalities and dignitaries from the academic fraternity. They can get guidance from their valuable words. The parents of the students were to be invited to the book festival to encourage the students.

b. **Outcome:** The event extending for five days could bring the students, faculty of the institution, the students from the other institutions, faculty from the other institutions, eminent personalities, parents, and local people around the institution together. The students developed an interest in access and utilization of the resources. Active involvement of the students with the library activities was possible.

c. **Special Mention:** Cardboard boxes, wires, and other waste materials to display books, journals, etc.

d. E-display of resources was with the help of desktops.

e. "Best out of waste" was the theme for designing the exhibition.

2.   Visit "State Central Library, "Kolkata, West Bengal, India (19th March 2015).

a. **Objective:** A visit to the "State Central Library" was a part of the (National Social Service Scheme) "special camp" activity of the college. The main objective of the program was to spread library awareness. Children from economically backward communities of adjoining areas of the college were made aware. (Figure1). A library can help in social and educational sustenance for future generations.

b. **Outcome:** The children were given permanent membership of the "State Central Library" after producing certificates from the headteachers of their respective schools. The children participating in the rally were made aware of the scope of a public library in their locality. The local community was made aware of the library and its use. The children couldn't get introduced to the library for the benefit of the children. Later with special permission from the guardian, they too joined the rally with their parents. The children waited to get hold of books soon!. The student volunteers and faculty escorted the children and had proper arrangements for helping the children reach the library. The volunteers helped the children to find books of their interest in the library. The librarian, "State Central Library," appreciated the efforts. He encouraged the children to regularly visiting the library.

Figure 1.

Special mention: A poem was written in the regional language" Bengali," especially for the program, on how a library can help a child learn. The children recited the poem during their walk to the library. Some "posters" were made by incorporating cartoon characters so that the children can easily relate to the benefits of library visits.

3.   Library Visit for Socio-Economically Backward Children (2015).

The project was an extension service from the library, Sir Gurudas Mahavidyalaya, with the active participation and co-operation of the (National Social Service Scheme) team. The project was in collaboration with State Central Library, Kolkata.

A project for one year was taken up by the library, of the college, after noticing the enthusiasm of the students to visit the State Central Library

Every week, for a year, the student volunteers from the college took the children to the "State Central Library." The student volunteers assisted the children with their required books from the library. An attendance register was there to keep a regularity of visits every weekend from the college library.

a. **Objective:** The project was to spread awareness among the children residing in the adjoining areas of Sir Gurudas Mahavidyalaya, especially among the socio-economic have-nots, by encouraging them to attend "The State Central Library." The library has a "children section. "The project was for those who get admitted to the school but leave school. They do not get support for the study. The cause may be the

financial crisis for buying enough books or lack of support for study at home. Most of them were first-generation learners. These children face problems despite having the potential to study like any other children of their age. The parents of these children are not sufficiently educated and may have lost their faith in education as a means for a better future. Some of these students attend the school just for the daily mid-day meals. The children fail to attend schools to support their families. A little support may help the children to return to the mainstream. A little support can assist the children in furthering education, overcoming the barriers. Providing the future generation with possible benefits of an institution called a library. Aware about the educational as well as other services of a library. They shall develop a habit of going to school. To turn their "wish" to study more into a "will" to learn. New opportunities shall no longer seem to be a dream for them. The project shall help in continuing study. They can get the full benefit of the "children section" of the "State Central Library" regularly.

b. **Outcome:** The program was the initiation for the children who came to know that a library, a public library is a place where they can get enough educational resources to support their curious minds.

4.   Book Display and Book Review on Archival Collection of the Library (7th May 2015).

a. **Objective:** The student-faculty-local community interaction on diversified and rare collections of the college library.
b. **Outcome:** Sharing of knowledge with the community.

5.   Feedback Session (with the Parents, Dignitaries, and the Headteachers of the Local Schools) on the need for a School Library (23rd July 2016).

a. **Objective:** The program wanted to bring the headteachers of the schools, the parents, and the children from the local schools to discuss their educational requirements. The need for a well-stocked school library to address the educational needs of the children was the topic of discussion. An appreciation and encouragement of the children for regularly visiting the local libraries was possible. Felicitation of the student volunteers of the college was also a part of the program.

Figure 2.

b. **Outcome:** The feedback session addressed the problems of the children and encouraged them to learn. An interactive discussion was possible. The program had a perfect scope to discuss the need of the local children to get access to books.

6. A Storytelling Session Organized in Collaboration with the Children of "SOS Village," Kolkata. (13th May 2017).

a. **Objective:** A storytelling session to reach out to the children of the age group under 15 years, with the permission of "SOS Village," Kolkata. The storytelling session could gift them an hour of enjoyment while sharing the story of the childhood days of "Rabindranath Tagore," the eminent personality from Bengal, famous for his literary contributions, all over the world. Gaining knowledge about the childhood days of eminent persons and their contributions to society serve as a great inspiration and guidance for the children. The program was for social inclusion.

b. **Outcome:** The storytelling session was successful. It gave enjoyment. It served as a means of transfer of knowledge with the children.

7. Information Literacy Programme (July 2018)

Information literacy activities are regularly conducted, like "Current Affairs Quiz''. The program was to reach out to a large number of the student community of the college and adjoining locality,

a. **Objective:** An information literacy program was planned from the college library to inform about the collection of the resources like books, journals, and magazines on International Current Affairs, National Current Affairs, Current Events, Sports Current Affairs, Persons in News, Awards Current Affairs, Science and Technology Current Affairs, Reasoning, General Aptitude, Verbal ability, Data interpretation, Mental Ability to the students of the college as well as the students of the adjoining colleges. The participants were to be informed about the online e-resources for career and job opportunities.

b. **Outcome:** The program led to student satisfaction and gave a boost for accessing the library collection on career and job opportunities. An increase in the access to online e-resources, for career and job, was also visible. "Career counseling cell" of the college arranges for placement assistance. An effort from the college library, as an extension activity, provided the necessary support for preparation and study for career and job-related examinations. Students were satisfied.

8. Awareness of Plastic Pollution and Tree Plantation in Collaboration with a Non-Profit Organization, "We the Common People"(14th August 2018)

'Think Environment Initiative" is an environmental awareness initiative from the college library, where the students are encouraged to think about the environment. The students can think of ways to spread awareness about environmental issues. The program was organized to create awareness and have a far-reaching impact on the sustenance of the environment, an awareness program on plastic pollution. When the students are aware, the program has a far-reaching effect on the community.

A survey of the locality was done, for identifying the negative aspects of plastic pollution by the students. Students visited the local plastic collection and recycling centers.

The students prepared a display board. (Figure 3), for communicating about the impact of plastic pollution. Plastic pollution through photographs of plastic pollution in the locality, newspapers with the news of plastic pollution affecting the animals, birds were made use of, for explaining plastic pollution.

Figure 3.
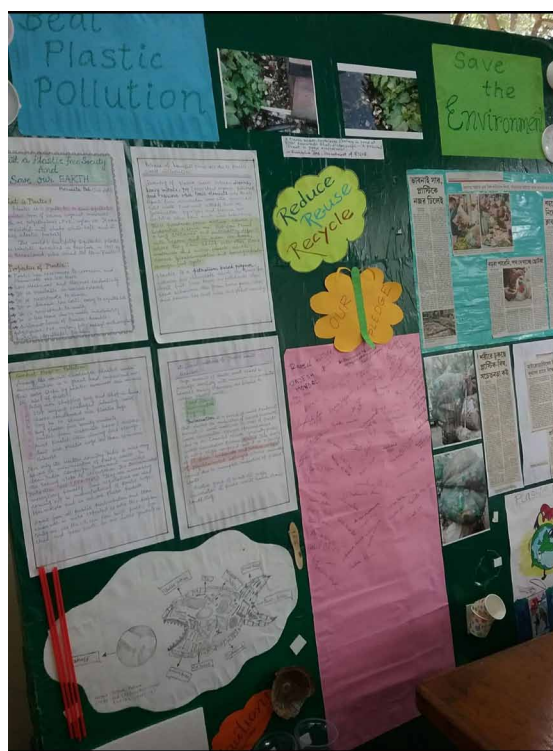
Preparing posters and drawings, arranging lectures and presentations on plastic pollution by eminent personalities was done. The institution organized a tree plantation program.

a. **Objective:** Spread awareness on plastic pollution and its effects.

b. **Outcome:** The local people were made aware of the impacts of plastic on their daily lives, health, and the environment. "#Beat plastic pollution" was the theme of "World Environment Day"2018. Setting up a platform for communication about the burning global issue was the main objective of the program.

9. Awareness Program, "We and our Environment" in Collaboration with a Non-Profit Organization, "We the Common People." "Kolkata Cycle Samaj " and "Siddha Group" (25th September 2019).

a. **Objective:** To make the local people aware. To educate the students of the institution on ways to save water. The ways to save water and minimize water wastage were explained (Figure 4).

Electromagnetic pollution, another menace and is not a concern among many, but its detrimental effects are to be informed.

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Figure 4.

Dengue fever is a common menace in congested localities with an unhygienic lifestyle. For protection against vector-borne diseases, people are to be made aware of the cleanliness of their surroundings.

The awareness program was a collaborative effort. "Think environment Initiative" of the library, Sir Gurudas Mahavidyalaya, and the ("National Social Service Scheme") team of the college organized the program. The college collaborated with the "Siddha group" for sponsoring the saplings to be planted during the "Tree Plantation" ceremony.

b. **Outcome:** The community awareness program spread awareness about environmental issues. The local people were made aware of the topics like saving water. The students involved in the program were also made aware of the necessity of practices for a sustainable future. Objectives of the program were highlighted in the media (news/blogs) and were widely appreciated.

10. Value Education Program (8th February 2020).

Unrestricted use of "smartphones" and an affinity for "fast food" is detrimental to a healthy lifestyle. The parents are facing numerous hindrances because "smartphone" addiction harms the health of the youth.

a. **Objective:** A drama enacted by the students and staff of the college titled "Ajker Projonmo" in regional language, "Today's generation" put up issues of psycho-physical and the psycho-social condition of the youth.

Youth represents the future. Value education needs a thrust in the undergraduate curriculum for an aware and healthy youth.

b. **Outcome:** Knowledge about the physical and mental health of the youth and its impact on a healthy society.

11.   Curriculum Enrichment Book Fair (Indicated as Best Practice during NAAC Accreditation, 2016)

"The Curriculum Enrichment Book Fair" organized on 30th August 2013, 9th September 2014, 20th August 2015, 9th September 2016, and 10th August 2018 was a success.

a.   **Objective:**
   i.   It is a user orientation program. It aims to draw the attention and interest of the students of the college towards library usage.
   ii.   The students get to know about the different books on the curriculum.
   iii. The faculty and students' interaction is possible.
   iv.   Guidance of the faculty during the purchase of books is possible by the fair, arranged within the college premises.
   v.   Librarians and faculty from other colleges can join hands in the library collection building.
   vi.   Additional discounts help the students.
   vii. Recommendation for purchase by the students and faculty helps the library. A collection based on users' choices is possible.
   viii. The other colleges also get informed about the developments and achievements of the college library.
   ix.   The fair helps for information delivery and exchange.
   x.   Encourage the students to participate in different activities
   xi.   Volunteers participating in extension and outreach programs are encouraged for their services.

b. **Outcome:** The curriculum enrichment book fair encourages users to utilize the library. The students can get acquainted with the objectives of the library. The students get actively involved with their skills and capacities according to the requirements for organizing the program. The curriculum enrichment book fair is an effective way of orienting the community for effective utilization of the resources and services of the library but interestingly and informally.

Other innovative schemes of long term faculty-student involvement programs initiated from the college library are a constant encouragement to plan and participate in more extension and outreach activities are as follows:

● Friends of the Library(2011 onwards)
● Literary Circle(2011 onwards)
● Adopt a book(2012 onwards)
● Spoken English Initiative(2014 onwards)
● Triumph "The Scholars Club"(Introduced in 2016)
● Library Induction classes(2017 onwards)

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● Think Environment Initiative (2018 onwards)

As can be noticed, the extension and outreach activities towards community engagement by a college library can be of varied types with different objectives and outcomes.

However, extension and outreach services towards the community may not always be a structured approach.

Expanding the Scope with ICT as an Important Tool

Continuous improvement of the extension services for community engagement is possible with information and communication technology.

For example,

● E-Display of new arrivals.
● E-exhibition of books.
● Use projectors during dramas, puppet shows, health and environmental awareness programs, folklores, and story hours for the community.
● Use Slideshows during programs through PowerPoint presentations.
● Conducting learning sessions through web conferencing apps is possible.
● Information delivery and information service about the e-resources, e-contents, and learning tools over smartphones is possible.

Figure 5.

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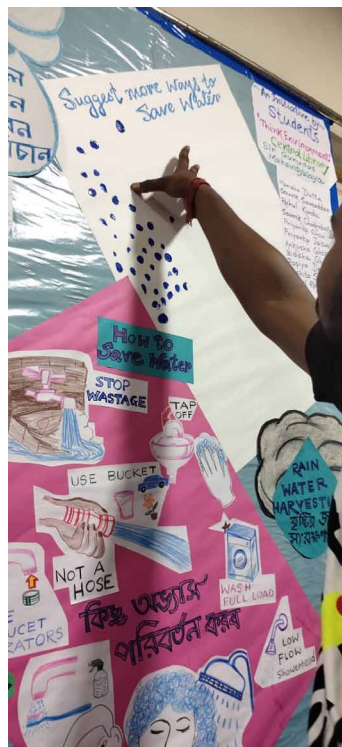
For collaborating with people and institutions, GOOGLE MEET, WEBEX have been effectively used during the COVID-19 pandemic.

Community Engagement Activities During Covid -19 Pandemic (2020-2021)

The nature of extension service during the Covid-19 pandemic is of an entirely different approach. Compared with the past activities, the recent times have led to a change in the requirements; especially the teachers and students of the colleges faced the urgent need to know about the tools and techniques to continue teaching-learning online. The college library has shifted its attention towards conducting programs involving information and communication technology-based tools. The sphere of extension and outreach activities over the web conferencing platforms has broadened. Education during the Covid-19 pandemic requires several technical help for the student community, faculty members, and librarians across colleges. In collaboration with different academic departments, professional development programs get organized by the college library. Skill exchange for online teaching-learning is demanding attention. The faculty and students are getting help during the pandemic period with such programs are organized.

1.   Professional development workshop (19th July 2020)

    a. **Objective:** To help understand "MOOCs (Massive online open courses) for professional development, and to deliver a hands-on experience with the courses on the "NPTEL-SWAYAM" Portal.
    MOOCs help develop learner-centered teaching by thinking in an entirely different way. During the pandemic, a teacher had to plan for change in pedagogy, enrich the study materials, and include newer content for online teaching-learning."MOOCs" help keep updated with the latest technology for interactive course structure. MOOCs can give tips to grab the attention of the students. MOOCs encourage teachers to be more tech-savvy.

    b. **Outcome:** Google form feedback was collected to understand the level of satisfaction of the workshop. The responses revealed an interest in knowing more about MOOCs as well as moodle, virtual classrooms creations.
    Moreover, the participants approached organizing more interactive sessions during the COVID-19 lockdown period. Participants also suggested conducting the professional development workshops according to the infrastructure of a college. The need of the students of the college was to be given importance during the programs.

2.   Collaborative Learning Initiative (November 2020, continuing up to 2021)

    Collaborative learning sessions are being conducted every week, over Google meet, web-conferencing apps. A Google classroom to share the learning materials and other relevant information for the collaborative learning sessions. The program started with the objective to help in the professional development of the faculty through skill and knowledge sharing sessions. Faculty members attend the learning sessions to exchange knowledge, expertise, and resources among themselves for teaching-learning.

    a. **Objective:** The faculty and librarians can share their skills and competencies to support the academic activities.

b. **Outcome:** The teaching-learning process during the pandemic got a boost. The faculty and the librarians got a scope to share their skills and technical knowledge. Learning became easier. Peer group sharing of skills became possible. The collaborative learning sessions have been widely accepted and supported by other institutions.

The essential outcomes are:

- Relearn some techniques, skills, and tools to be competent for online teaching-learning.
- Learn the knowledge level, application level, critical thinking level, and logical level strategies and skills.
- Improve the learning experiences of the students while coordinating their activities.
- Essential learning of technical skills.
- Solve different technical issues.
- Conduct the online examination, evaluation of assessments, develop study materials.
- Deliver information effectively during the pandemic.

3. Enrolment of Students in MOOC Courses(2020-2021)

a. **Objective:** The main aim of organizing interactive sessions with the students is to enroll the students in MOOC courses. To encourage them to utilize more online resources as possible through such programs. The approach of reaching out to the students during the pandemic was to help them correlate the contents of the resources with the undergraduate curriculum. The courses shall help in acquiring new skills.

b. **Outcome:** Students are gaining interest in online resources.

4. Collaborative Ventures for Knowledge Exchange with Colleges and Universities on Academic Issues during Covid-19 Pandemic:

a. "Three Day Online Workshop on The innovative use of information and communication technology in teaching-learning and research"**(6th,8^{th,} and 9th June 2020)** organized by P.N.Das College, Palta, West Bengal, India in collaboration with Sir Gurudas Mahavidyalaya, West Bengal, India.

The Librarian, Sir Gurudas Mahavidyalaya, speaker of the topic, "Enhancement of teaching-learning endeavors through innovative approach towards e-resource."

b. "Tools and Techniques for Preserving the Library Documents in the Present Situation" **(3rd September 2020),** webinar organized by "Info Lib Academia" West Bengal, India in collaboration with "Sarsuna College" West Bengal, India.

The Librarian, Sir Gurudas Mahavidyalaya, speaker on the topic, "Preservation of paper: The key issue today."

c. UGC-CPE funded National Seminar on "Prospect of Library Services in e-Learning Ecosystem," (16th January 2021) organized by Central Library, Barrrackpore Rastraguru Surendranath College, West Bengal, India.

Librarian, Sir Gurudas Mahavidyalaya presented a paper titled, "Professional and personal development of faculty and students for e-learning: An outcome-based essential support service of a college library with special reference to Sir Gurudas Mahavidyalaya, Kolkata."

d. "Two Days State Level Webinar on, "Library Services at the time of Pandemic" **(28th and 29th June 2021)** organized by, The A.B.N.Seal College Library, West Bengal, India.

Librarian, Sir Gurudas Mahavidyalaya, delivered an invited lecture on the topic, "Exploring E-Resources for effective utilization in higher education teaching-learning.

Objective: Share knowledge and skill during a pandemic for curricular supplementation.

The Future Possibilities and Innovation

There is a drastic change in the nature and scope of extension and outreach programs during the Covid-19 pandemic. The requirements of the community have changed to some extent. Those are to be satisfied with different approaches. Newer opportunities have unfolded. The librarians have a responsibility during the changing times. As is already evident, the Covid -19 pandemic has a sudden impact on the requirements of the people. Information and communication technology shall be an effective tool in planning the services in the future. The activities and services by the college library have been entirely different during recent times, compared to the nature and approach of the services before the outbreak of the Covid-19 pandemic.

Traditional extension services are storytelling, drama, puppet shows, book reading sessions, awareness programs, competitions, newspaper reading hours, mobile library, social inclusion services like dissemination of employment-related information, training programs for competitive examinations, public awareness programs, environmental awareness programs, literacy programs, different health issues, and social issues. These extension programs using better utilization of online tools are possible now. A college library can plan accordingly and reach out to the community during the Covid -19 pandemic.

The online mode can give a new approach to the activities already being taken up in traditional methods. A college library needs to think out of the box to keep itself ready for community engagement programs, with the changing requirements of the community it addresses.

The digital divide is a limitation in developing countries like India. Minimizing the digital divide through extension services can be an essential aspect of college libraries during recent times. Since Covid-19 has a devastating effect on lives and livelihood, reaching out to the people with basic requirements, like, education, health, and scope of earning, is a step a college library has to take in recent times. Awareness programs on "Covid-19" can include awareness of vaccination drives, awareness of personal health, and hygiene conducted by college libraries.

"Survival of the adaptable" is the truth for the social adaptability of an institution. The more it is for the people, the more it is worth for the community.

CONCLUSION

As already discussed, the more innovative the approach, the more are the chances for success.

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Time counts success. Extension and outreach services towards engaging the community have probable qualitative attributes rather than quantitative takes a long time to actualize the cumulative feedback or result. A qualitative analysis, as is evident from attitudinal changes, good responses, suggestions, are the parameters for data analysis to understand whether the planning on the set objectives has resulted in desired outcomes. The reciprocation of the community in response to the services is also an attribute for counting the accomplishments. Innovation and design thinking are the essential attributes to expand the horizon of extension and outreach programs and services.

The academic library is a laboratory for society-centric programs. An academic library can create an ecosystem for the campus and the community at large.

Innovation can change the traditional extension and outreach services.

Skillful integration of information communication technology with collaboration, critical thinking, communication, creative thinking are the pillars for effective extension and outreach services.

A college library must hope to succeed in the efforts as "Faith is the bird that feels the light and sings when the dawn is still dark." —— Rabindranath Tagore.

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KEY TERMS AND DEFINITIONS

Catalyst: Take the initiative and the responsibility for doing certain things.
Impact: To influence an effective outcome.
Information Service: Providing information to the person in need.
Innovation: Use a new method of operation, techniques, tools, or idea.
Literacy: To gain proper knowledge and awareness.
Outcome: Counting the result or success.
Scope: Have numerous opportunities and areas so that newer avenues are open to provide essential services.
Service Learning: Involves a learning approach for the students of an academic institution that includes academic study, practical experience, and civic engagement.

Chapter 7

Digital Divide Among the Tribals of Kerala:
A Comparative Study of Kannavam and Thavinjhal Village

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ABSTRACT

In the present society, the real apartheid is not between the racial or ethnic groups but between the ability to access and use the new modes and forms of information and communication technology. The gap between the ready availability of technology and those who do not have access to the computers and internet is called the digital divide. The society with high digital divide has social, financial, and political instability. The role of libraries as community information centers in rural and tribal regions will help to reduce the digital divide. The study identifies capacity building of rural people to make use of ICTs is crucial to solve the problem. This chapter focuses on the digital divide in the two tribal regions in Kerala, namely Kannavam and Thavainjal Panchayath, India. The quantitative comparative data of the factors affecting the digital divide, barriers for ICT access, the role of social media usage in reducing the digital divide in both the villages are quantitatively compared in this chapter.

INTRODUCTION

In the prevalent society, the real apartheid is not between the racial or ethnic groups. The actual segregation is between the ability to access and use Information and Communication Technology (ICT) from those who have not. The gulf between the ability to access computers and the internet is called the digital divide. Before the 20th Century, this gap is between those who have telephone access and those who have not. In the 1990s, the focus changed to internet access. The Digital divide is mainly visible, urban and rural people, educated and uneducated, technologically savor and those who are not, developed and developing nations, etc. Certain people could not afford or access computers or the internet.

In addition, some people do not have the informative or practical knowledge to understand the value of information and information literacy in the Information Age. People who regularly use the internet are open to a variety of topics, news, and tools. This imbalance is the driving force behind developing countries, underachieving students, and a workforce having poor outputs. The digital divide has to be bridged for the world to get progressed. In a mainstream society or urban areas, we cannot see the gap. The real disparities are opaque in the remote areas and the areas where uneducated and illiterate people are more. Tribal regions in Kerala mirror the digital divide prevalent in the country.

The digital divide trend has emerged in society with the advent of Information and Communication Technology. The gulf between those who can access digital information and those who could not access digital information is called the digital divide. The concept has widespread popularity in Western countries before coming to other regions. Disparities in internet speed in their societies created social injustice. It is the social injustice of those who have access to the internet and those who have not. The digital divide is not limited to developing countries. Developed countries are also facing such dilemmas to handle this problem.

United States National Telecommunication and Information Administration (NTIA) states that the digital divide is "the gap between those who do not and those who do have access to computers and the internet. During the progress the notion of a digital divide and its logical implications, social problems have to be addressed through provisions of computers and internet accounts have seemed increasingly problematic." ("Digital divide", 2001)

Merriam Webster's dictionary refers digital divide as "the economic, educational, and social inequalities between those who have computers and online access and those who do not." ("Digital divide", 2021) It is the gulf between the ability to exploit Information and Communication Technologies and those who have not. In this digital age, knowledge in working with computers and internet usage is vital.

Initially, the digital divide is limited to the ownership of computers. Later it is changed to access of internet. Nowadays, it encompasses the societal inequality in accessing the internet. Here comes the relevance of the study. Different segments of societies were not in a position to use the ICT infrastructures justifiably. There is a usage gap seen everywhere. It is the so-called digital divide. It may be due to the poverty rate seen everywhere in society. Such poor people cannot afford to purchase computers and avail high-cost internet connections. Even though, if one could afford all these things, there may lack of speed or bandwidth for accessing the internet.

In the Information Technology age, those who could not access digital information may be segregated or out thrown from mainstream society. So bridging this gap may be considered as a problematic criterion of the. This social inequality is very evident in tribal regions. States with socio-economic-political disparities could not attain their development in any way. High speed and high-quality internet connection is a must for bridging the gap in the digital divide. Quality and speed are lacking when moving from urban areas to rural as well as tribal areas. The prolific use of digital resources resembles the growth of society hastily. The glimpses of developments were apparent in a well-informed society where people are engaged to the internet, the virtual library. A low-speed broadband connection is the reflection of backward or poor community development. In a world where the digital divide is widening, there is social-financial-political uncertainty.

ICT is advancing at a breakneck pace so that the time it takes to upgrade becomes short. A new digital divide emerges while the old one persists. Another factor causing the digital divide is the income disparity. It is the result of wealth disparity. ICT becomes a new source of fortune from an economic

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standpoint, and the digital divide widens the gap in the ability to generate a good sign in the information age. (Castells, 2000)

In India, the digital divide was a threatening issue, especially in the rural and tribal areas. Lack of elementary education among the tribes hinders meeting the basic information needs of tribes. Social media usage through mobile networks has helped a lot to them to close the digital divide. Apart from this, the authority has taken initiativeness for digital information programs. That has got tremendous applause. Free Wi-Fi to rural people has also helped to bridge the digital divide in India. Telecommunication facilities should have given prime priority while discussing the critical matters for eradicating the digital divide among the tribes. This study is conducting in the tribal areas of Kerala, India. Two villages' viz., Kannavam in Kannur District and Thavinjhal in Wayanad district have been taken for comparative study.

The present study deals with the driving factors of the digital divide, internet awareness, and its usage among tribal people of Kannavam and Thavinjhal villages in Kerala, India. According to the 2011 census, the Scheduled Tribe population in Kerala is 484839 constituting 1.45% of the total population. Nowadays, digital information plays a vital role in the current and future growth of the nation and also in the globalization perspective. Since the Kannavam and the Thavinjhal villages are populated by tribes, due to the low literacy rate, low economic stability, and slow societal progress, there is a visible digital divide in these villages. This comparative study of the digital divide among these two villages helps to know the ICT knowledge of the people and the finding of the underlying factors for the digital divide. A sample population of 98 people has chosen from both villages. The illiteracy rate in the villages reduces the use of modern technologies and gadgets. Economic weakness, accessing weakness, usage weakness, and empowerment weakness are the prime causes of the digital divide in these tribal areas. Economic weakness restricts them from acquiring a computer or internet connection. Lack of facilities and environment for using modern ICT infrastructures hinders the people from using it in its true sense. These people don't have the empowerment to exploit all the features and facilities contributing to the growth of their own and the nation's development. (Kenneth, Deepak, 2002, 2004). In a democratic State, public services should be equally available to society. Digitalization in society should be equally accessible to the whole people. But if there is digital exclusion, there is inequality. The authority is moving towards digitalizing all the services and promoting online services, places where the digital divide more could not include in this online process. It will create chaos in society.

In India, approx. 40% of people are living below the poverty line. As per National Statistical Office (NSO) in India survey report shows a 77.7% literacy rate among persons aged seven years and above. The literacy rate in urban areas is 87.7%, in rural areas, it is 73.5%. Kerala is standing front in the literacy programs and literacy rate of people. While considering the digital literacy of people in India, the picture is pathetic. Only 23% of urban households and 4% of rural households possess computers. Youths falling under the age group of 15-29 years, around 56% in urban areas and 24% people in rural areas have operational skills in computers. It is evident that in the same age group 58% of youths from urban areas, 25%rural youth use the internet. Eklavya Model School and Rajiv Gandhi National Fellowship Scheme (RGNF) promote students belonging to higher education among the Scheduled Tribe communities (www. drishtiias.com, 2019). The lack of proficiency in the English language was identified as a major obstacle to the education of Tribal learners. (Varghese & Nagaraj, 2013)

Indian ministry has initiated several programs to accelerate the digital accessing and utilization rate among the public. The programs listed below exemplify that.

- **Digital India Program:** This program focus on all the existing digital and online initiatives of the services of the ministry and all the people to use them in a synchronized manner.
- **Pradhan Mantri Gramin Digital Saksharta Abhiyan:** Program to make all the people in India digitally literate.
- **National Digital Literacy Mission:** Program to ensure at least one person from each household should be digitally literate.
- **Bharat Net Program:** Program to ensure optical fiber networks in all panchayats and villages.

India is claiming for the second-largest growing mobile market, internet connectivity of the country is pathetic. Connectivity to the internet is very vital for accessing digital information for the development of a knowledge-based society. Government has to make all its efforts to uplift and empower this down the trodden community with the aegis of the National Digital Literacy Mission (NDLM). In India, villages constitute more than 6,50,000, majority of the country's population lives in rural regions. Most of the places in India are in remote areas. The benefits of the authority are not reaching out to these grass root level places. But the administration has taken initiatives to make the rural people part of the nation's economic development. Various programs are initiating in this regard. NDLM helps rural communities to ensure their role in the global digital economy and building a technology-savored society. To reach the goal of cent percent digital literacy, India has to make 3.5 people be digital literate. Bharat Broadband Network Ltd. (BBNL) under Universal Services Obligation Fund (USOF) was established to provide optical fiber connection in the village.

Role of Libraries to Bridge Digital Divide

Nowadays, libraries have their computers wired for the internet connection. All these are for public use. Pubic can exploit this facility and can avail the facility for communication with the public officials and use the information systems needed in their day-to-day life. A public library can act as a hub for providing three vital roles for bridging the digital divide.

1. Access
2. Training
3. Education and literary programs

1. Access

A public library has its computer and internet connectivity to provide access to union catalogs of cooperating libraries. The users' time is to be saved from visiting the neighborhood libraries.

Accessing freely available sites and the systems shall be popularized. Students who have financial restraints to possess a smartphone can use these computers to attend online classes.

2. Training

Public librarians who know about web surfing can train people who are new to technology. Basic training on internet browsing and search techniques can be channeled through public libraries.

3. Education and Literacy Programs

Adult education programs and literacy programs are now imparting through public libraries. It will provide an opportunity for the working class to improve their present knowledge level. To the neo-literate, this will help to explore the new realm of knowledge hub.

Web surfing and email facility have been exploited through these centers. Effective communication can be possible using new technologies. It will pave a path for bridging the digital divide.

The main challenge before the digital divide is the poor educational and technological skills of the people. Both these matters can be resolved only through public libraries by promoting internet access, proper training in web surfing, by giving basic education and information literacy skills.

Infrastructural facilities and the professional skills of the librarians need to have strengthened. Adequate training for library professionals needs to provide efficiently. It will solve the issues of the digital divide among the tribal areas. The main reason for the digital divide is the lack of elementary education. (Aswathi, 2019)

Challenges of Rural Libraries in Bridging Digital Divide

Being the grass-root nets of the public library system, rural libraries have direct contact with the rural community. In Kerala, a rural library from every panchayat has to work as a community center for the rural people. But the government implemented programs and facilities are not reaching the grass-roots level. It is also the same in the case of rural libraries. It has been proven in Thavinjhal and Kannavam Panchayats. The Community Information Centre working in both of the panchayats has poor infrastructural facilities. It is the crucial reason for the digital divide in both the panchayats.

The Strengthening of rural libraries and empowerment of the librarians by giving proper professional training are the recommended solutions for the focused issue.

Barriers of Bridging Digital Divide in Tribal Areas of Kerala

Barriers affecting bridging the digital divide in the tribal areas of Kerala have been listed below.

● **Remoteness**

The tribes in Kerala have predominantly located in remote areas from mainstream society. The development phase is very poor in these areas compared to other localities of the State. All these reflect the overall stagnancy of development in rural areas.

● **Education**

A vital challenge of the education system in Kerala is the number of drops out at the undergraduate level. IT education might be set forth from the grassroots level itself. The educational status of the tribes is very mere compared to other rural areas of Kerala.

- **Literacy Rate**

Though Kerala has the highest literacy rate among the states of India, Kerala shows a poor literacy rate in rural areas. It will hinder the public from accessing new technological knowledge.

- **Language**

The rural people with elementary education are more conversant in using native or regional language only. That stands as a barrier before them for surfing World Wide Web. More applications supporting regional language and translation services ought to be used to solve this crisis.

- **Finance**

The majority of the rural people are low-income earners. They could not own any computer or internet connection. Rural libraries should have to avail sufficient funds from the authorities to strengthen the infrastructures. Policymakers should give extra effort and considerations to rural libraries. Development can be possible only through the grass-root level. So sufficient funds should be disbursed to rural community centers and training should be given to library professionals to bridge the digital divide. (Panda et al., 2013)

Digital Divide in Kerala Scenario

Kerala, ensuring as a knowledge-based society, has started several programs of digital literacy to reach down to the rural people. 'I am also digital' is initiated by Kerala State IT Mission and Kerala Literacy Mission. It was entrenched to popularize online services by enjoying the goodness of digital facilities and technologies to promote awareness of cyber security and crimes. This program also makes the public aware of e-governance and popularizes the use of social media platforms. Knowledge of the ethical use of social media and digital securities was supposed to transmit through this program. Although Information and Communication Technology can impart socio-economic development, it can also marginalize the rural people from mainstream society.

Review of Related Literature

Several studies also have been done to study the digital divide. The significance of Information and Communication Technology and the ability to use the technologies is a crucial factor behind the concept of a digital divide.

Agarwal and Panda (2018), in their study on "Pattern of Digital Divide and Convergence in Access to ICT Facilities among the Indian States, tried to find out the economic growth that happened through exploiting ICT technologies in the Indian scenario. If there is a digital divide, regional development could not reveal. The digital disparities in India have been visible in its uneven development. The study suggests that separate policies and regulations should draft to avoid the digital divide in the states of India to avoid the economic disparity in the usage of ICT.

Aswathi and Haneefa (2020) have investigated the university students of Kerala's attitude towards Information Technology and its significant role in the digital divide. One-third of the students showed

a high level of attitude towards Information Technology. It also shows that attitude towards Information Technology has a direct correlation with the digital divide. It is clear from the study that building a high-level attitude towards new technologies will eliminate the digital divide. Social media have created such a good sign for popularizing Information Technology use.

An intriguing conference paper by Bernhard and others, (2019) called "A digital society for all? - Meanings, practices, and policies for digital diversity" discussed the digital divide and policy for inclusion and equality for digital access in the democratic governance of Sweden. The focus of that paper was to supplement the debates going on the digital divide, digital inclusion, and digital literacy in Sweden. The study has been focused on two cases of the digital divide and digital literacy responses from street-level public administration about e-government services in Sweden. They suggested that public libraries can do much in meeting this crisis. They are, public libraries can bring digital diversity by making available computers in libraries. Digital literacy may be imparted by conducting workshops and drop-in coaching. Digital inclusion has to be promoted by enforcing Library Act in this regard and conducting regional programs.

Panda et al. (2013) conducted a study to portray the actual status of a digital divide in India. They have perceived the digital divide in India to consider its impact on the global level also. Libraries play a vital role in bridging the gap between the digitally rich and digitally poor society. Libraries are fostering human values and culture in society. Now the libraries storing digital information and this digital information are universally available and accessible. Digital discrimination prevailing in various cultural- social-economic groups has paved the way to digitally rich and digitally poor segregation in society. The paper discusses how the digital divide scenario is affecting Indian people and the global environment. Barriers to the digital divide are low literacy rate, education system, and language. The study suggests that policymakers along with librarians, sociologists, and technologists have to develop strategies to strengthen the rural libraries. Empowering rural libraries and librarians is the solution to bridge the digital divide.

Thomas and Govindan (2008) were conducted a study on bridging the social and digital divides in Andhra Pradesh and Kerala. It was a capabilities approach study. They said that the digital divide is not merely due to access to Information and Communication Technologies. It is the result of major developmental problems seen the societies. The lion's share of the world's population was set back on accessing Information and Communication Technologies and acquiring information from various sources. They could not convert information into a stable knowledge form. All these are due to the lack of capabilities seen mainly in rural areas. The socio-economic-political discrepancy is too much in both States and this is the major reason for the social and digital divide. The study also revealed that in Kerala, the digital divide is mainly due to socio-economic inequalities. This is the reason for the lack of capabilities to use ICT among the people in Kerala and Andhra Pradesh.

Laila (2008) tried to find out the tackling of the digital divide in Kerala and the role of libraries. The main thrust of the study is was to find out the status of the rural libraries and their role as Community Information Center for bridging the digital divide in rural areas. Kerala State has brought out several e-governance projects and also Information Kerala Mission programs to bridge the digital divide in Kerala. E-district project has been brought forward in the districts of Kerala for accessing internet connection anytime and anywhere. The role of FRIENDS centers working under the Kerala IT Mission is praiseworthy in providing connectivity to the rural people. The study suggests that the uplift of rural libraries as Community Information Centers will help to bridge the digital divide in rural areas of Kerala.

Ramya (n.d) conducted a minor research study on financial inclusion and financial literacy among the tribal people in the Wayanad district in Kerala. It found out that financial inclusion in rural households may be given higher priority. The rural people are less aware of various financial policies and they could not access these financial policies. This hurdles the development of rural households. Like this access to ICT is the main problem of a digital divide in these tribal areas.

Sumanjeet (n.d.) explored on reasons for the digital divide in India. The study tried to find out the measurement, determinants, and policy for bridging the digital divide. The digital divide endangers social integrity. It is reflected in the overall development of society. It hampers the economic growth of the nation. The study also reveals that the major factors of the digital divide in India are illiteracy, lack of skill, lack of infrastructure, and digital investments in rural areas. The paper suggests that from the government level more thrust may be given to internet connectivity, augmenting capacity, cost reduction, civic engagement activities, enhancing capabilities to use ICT.

Partridge (2004) tried to find out the psychological barrier for accepting Information and Communication Technology by the people. Social Cognitive Theory by Bandura is used in the study to examine the psychology of the digital divide. The theory says that a person will act according to their perceived capabilities and the expected consequences of their actions. Data on internet usage and internet self-efficacy has been taken for the study. The study tried to find out the internal forces that make the people reluctant to use new Information and Communication Technology infrastructures and facilities in their day-to-day life. The study finds out the solution for 'what is' and 'who represents' the digital inequalities in society. The findings of the study re conceptualize the concept of lack of digital divide. It is from a simple lack of access to social-communicative and cognitive factors.

Objectives of the Study

The digital divide is evident in both the tribal villages of Kannavam and Thavinjhal. The study is conducting to compare the common factors of the digital divide among both the village and to find out the following objectives.

1. To identify the factors affecting the digital divide in tribal people.
2. To find the barriers to internet access.
3. To find out the impact of mobile phones on internet access.
4. To find out the impact of social media on reducing the digital divide.
5. To suggest measures for bridging the digital divide among tribal people.

Methodology

A sample of ninety-eight persons each from Kannavam and Thavinjhal village has been taken for the study. The majority of the respondents are tribes. The response rate was very low and the investigator took only 100 responding people randomly to conduct the present study from each village. The structured 100 questionnaires have distributed among the responding tribes, but only 98 questionnaires were returned from both the villages.

ANALYSIS AND INTERPRETATION

1. The Age Group of Respondents

The age of the respondents is considered because it helps to identify which age group people use Information and Communication Technology more. By assessing this factor more suitable services and products can be designed as per the different age groups.

Table 1 reveals that the majority of the respondents are youngsters in both villages. As many as 45% of respondents are from Kannavam, 49% of the respondents from Thavinjhal village fall under the age group of 20-40. Senior citizens with 60 above age group are least in number. As much as 14% from Kannavam and 12% from Thavinjhal were responded. Youths are more technologically savvy is the reason behind this response rate. There are many respondents from Thavinjhal village in the age group 20-40. The figure given below shows the age-wise distribution of respondents.

Table 1. Age group of respondents

Age	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
0-20	16	16.33%	14	14.29%
20-40	44	44.90%	48	48.98%
40-60	34	34.69%	34	34.69%
60-above	14	14.29%	12	12.24%
Total	98		98	

Figure 1. Age-wise percentage of response
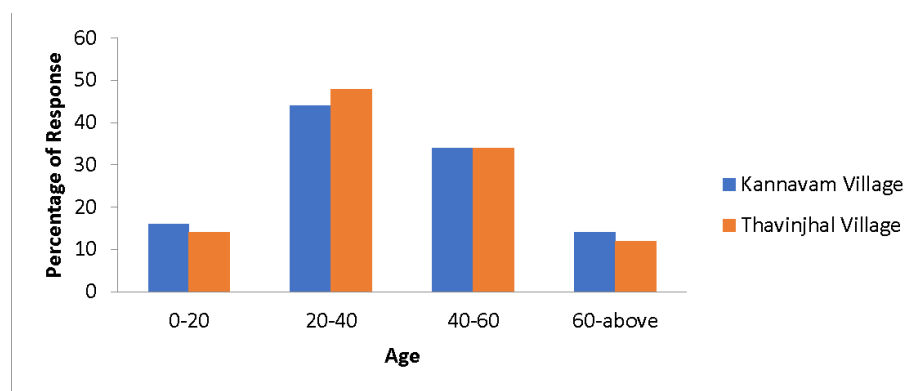
2. Educational Qualification

Education is also a crucial factor that assesses the socio-economic status of people. Among the tribes, the illiteracy rate is in hike compared to other areas of the State.

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Table 2. Educational qualification

Qualification	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
Matriculation and below	40	**40.82**%	50	**51.02**%
Higher Secondary and above	15	**15.31**%	10	**10.20**%
Other Courses	20	**20.41**%	19	**19.39**%
Uneducated	5	**5.10**%	19	**19.39**%
Total	**98**		**98**	
Test result Pearson Chi-Square: 8.570 Df: 3 Asymp.Sig.: 0.036				

Analysis shows that the number of users who have studied up to matriculation and below is high. The number of users with higher degrees is mere. It is apparent in both villages. It has been seen that the illiteracy rate in Thavinjhal village is 20%, in Kannavam village it is 5% only. Kannavam village showed more educated people compared to Thavinjhal village. Chi-Square test results showed an associated relationship of education in both villages. Education is the major factor behind the whole under development in these villages.

3. Annual Income of Respondents

Annual income-based distribution is shown in Table. 3.

Analysis reveals that half of the respondents have an annual income of below Rs. 10000/- in both villages. Respondents with annual income above Rs. 30000 are very least as in Kannavam 16% and in Thavinjhal it is 9% only. While comparing the annual income of respondents of both the village it is found that Kannavam village respondents showed a higher income rate compared to Thavinjhal village. Respondents earning Rs. 30000 and above is 16% in Kannavam village whereas it 9% in Thavinjhal village. This disparity is also the resemblance of the higher degree of a digital divide in Thavinjhal village. Low-income people could not afford the costly computers and access high-speed internet connections. So they can't access information at its best. The below-given figure delineates the distribution.

Table 3. Annual income of respondents

Annual Income	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
Below 10,000	49	**50.00**%	65	**66.33**%
10000-20000	18	**18.37**%	14	**14.29**%
20000-30000	15	**15.31**%	10	**10.20**%
30000 & above	16	**16.33**%	9	**9.18**%
Total	**98**		**98**	

Figure 2. Annual income of people
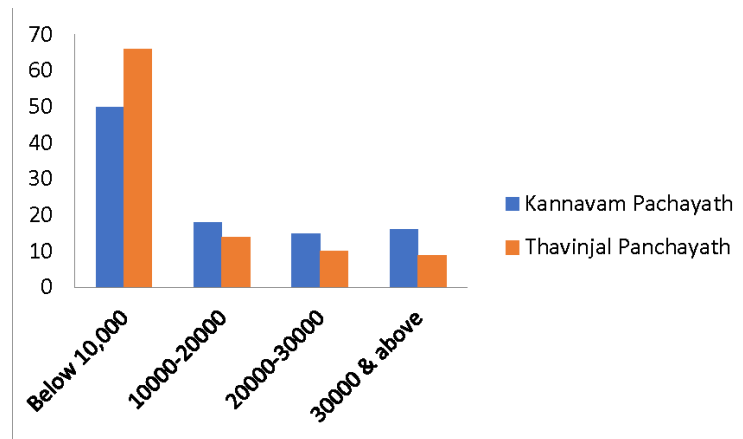
Having Own Telephone/Mobile Phones

To understand the basic telecommunication facilities available in the villages, a comparative study to find out the number of people who have their own telephone/mobile phone has been conducted. The below table shows the analysis.

Table 4. Having own telephone/mobile phones

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	**Percent**	**Number of Respondents**	**Percent**
No	8	**8.16%**	25	**25.51%**
Mobile	85	**86.73%**	65	**66.33%**
Landline	1	**1.02%**	8	**8.16%**
Both	5	**5.10%**	10	**10.20%**
Total	**98**		**98**	

The above table shows that 87% of people from Kannavam village have mobile phones and only 66% of people from Thavinjhal village have mobile phones. It may also be noted that 8% of people from Thavinjhal village have a landline telephone connection but only 1% of the people from Kannavam have a landline telephone connection.

4. Having Own Computer

The below table shows the number of people who own computers in their homes.

Table 5. Having own computer

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
No computer	81	82.65%	85	86.73%
Laptop	15	15.31%	5	5.10%
Desktop	2	2.04%	8	8.16%
Both	0	0.00%	0	0.00%
Total	98		98	

Comparative analysis of the ownership of own computers in the village shows that 83% of people don't have a computer in Kannavam village and 87% people from Thavinjhal village don't have computers. There is a difference in the number of ownership of laptops. In Kannavam village 15% of the population have their laptops whereas it is 5% in Thavinjhal village.

Both the village shows a similar data while comparing the ownership of computers.

5. Computer Knowledge of Rural People

Computer literacy is an essential component for assessing the digital divide. Table 4 shows the computer literacy or e-literacy rate of Kannavam and Thavinjhal village.

Table 6. Computer knowledge of respondents

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
Yes	30	30.61%	20	20.41%
No	68	69.39%	78	79.59%
Total	98		98	

According to Table 4, 70% of respondents from Kannavam and 80% of respondents from Thavinjhal village don't have computer literacy. The e-literacy rate is very low in both villages. The reason behind this disparity may be because the majority of the respondents have an education qualification of matriculation and below that only.

Computer literacy of the members of the family was also analyzed. It also showed the same like frequency as shown above. Given table shows the computer literacy level of both villages. In both villages, computer literates are very less.

The above figure delineates the e-literacy rate of both the village respondents. Comparative analysis of computer literacy of Kannavam and Thavinjhal Village reflects that there are more computer literates from Kannavam (31%), only 20% of people from Thavinjhal village know to operate computers. The digital divide is quite evident from this comparison. In a society with low computer knowledge, digital access and use are very low. This inequality will adversely affect the development of society as a whole.

Figure 3. Computer knowledge of tribal people
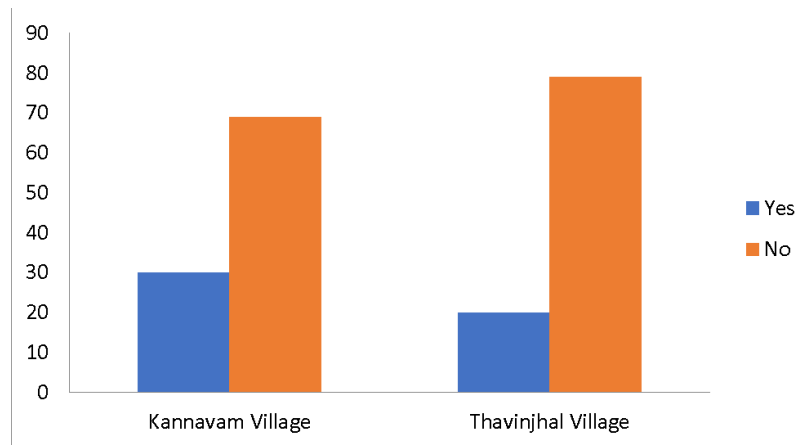
6. Respondents Availing Internet Connection

Internet connection is also a vital component in assessing the digital divide. So the analysis was conducted and below Table 5 shows the result.

Table 7. Respondents availing internet connection

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	**Percent**	**Number of Respondents**	**Percent**
No	22	**22.45%**	45	**45.92%**
Broadband	4	**4.08%**	2	**2.04%**
Wi-Fi	11	**11.22%**	3	**3.06%**
Mobile	61	**62.24%**	48	**48.98%**
Total	**98**		**98**	
Test Result: Pearson Chi-Square: 14.445 Df: 2 Asymp.Sig.:0.001				

It can be observed that 62% of respondents from Kannavam village and 49% of respondents from Thavinjhal village rely on mobile/smartphone internet connection. A broadband connection is very less. It may also be focused that 22% of respondents from Kannavam and 46% of respondents from Thavinjhal village don't even have an internet connection. Without having a high-speed internet connection it is quite very difficult to keep pace with information generating every second in the nook and corners of the world. Pearson Chi-Square Test result shows an associated relationship.

The comparative analysis of the medium used to access the internet shows that the majority of the respondents in Kannavam village use mobile phones (62%) but it is found that only 49% of respondents use the mobile internet connection in Thavinjhal village.

7. Opinion about Internet Plan

To assess the fiscal aspect of internet connection responses from respondents were collected and analyzed in Table 8.

Table 8. Opinion about internet plan

Response	Kannavam Village		Thavinjha village	
	Number of Respondents	Percent	Number of Respondents	Percent
Very costly	21	21.43%	23	23.47%
Costly	21	21.43%	21	21.43%
Affordable	16	16.33%	5	5.10%
Cheap	5	5.10%	5	5.10%
Very cheap	5	5.10%	7	7.14%
No response	30	30.61%	37	37.76%
Total	98		98	

Table 8 shows that most of the respondents opined that the internet plans they have been availing are very costly for them to afford it. It may be the reason for comparatively less usage of the internet among these economically backward tribal people. Free Wi-Fi facilities through the Government sector will reduce this issue.

It was evident that both the village respondents have the almost same opinion that the currently availing internet plan is very costly or costly. The annual income rate of both the villages is very less that is the reason behind such a remark.

8. Intervals of Internet Usage

How often the respondents are using the internet was assessed to understand the usage statistics of the respondents. Table 9 shows the analysis.

Table 9. Intervals of internet usage

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
Daily	48	48.98%	35	35.71%
Weekly	19	19.39%	25	25.51%
Rarely	2	2.04%	4	4.08%
Never	29	29.59%	34	34.69%
Total	98		98	

Respondents using the internet daily in their life falls under 49% in Kannavam village and 36% in Thavinjhal village. It may be noted that 30% of respondents not using the internet in Kannavam and 35% in Thavinjhal village. Analysis revealed that most of them have lack knowledge to use and access information through ICT and the majority don't have a high-speed internet connection. All this hinders the regular use of the internet.

It may be concluded from the above analysis that below 50% of people from both the villages use the internet daily. Compared to other areas of the State the usage statistics is very less.

9. Opinion About Speed of Internet

Internet speed is a matter of utmost importance while considering the digital divide. With a slow internet connection, if all the infrastructures are available, no one can access information on time. Table 10 shows users' responses to the speed of the internet.

Table 10. Opinion about speed of internet

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	**Percent**	**Number of Respondents**	**Percent**
High speed	9	**9.18%**	6	**6.12%**
Speedy	5	**5.10%**	12	**12.24%**
Normal	16	**16.33%**	24	**24.49%**
Slow	60	**61.22%**	36	**36.73%**
Very slow	8	**8.16%**	**18**	**18.37%**
Total	98		**98**	
Test Result: Pearson Chi-Square: 14.909 Df: 4 Asymp.Sig.:0.005				

The above table shows that 62% of respondents opined that internet speed is slow in Kannavam and 37% of respondents from Thavinjhal opines that they have also a slow internet connection. Pearson Chi-Square test result shows an associated relationship regarding the opinions of the speed of the internet available in both villages.

Comparative analysis of both the villages reveals that there is a slight variance in the speed of the internet. Thavinjhal village shows internet speed a little bit more. Although, the accessing rate is very less in Thavinjhal village.

10. Awareness of Public Wi-Fi Facility

An attempt was done to elicit awareness of public Wi-Fi facilities.

Table 11 shows that a majority of 61% of respondents from Kannavam and 75% from Thavinjhal are unaware of the public Wi-Fi facility.

Table 11. Awareness of public wi-fi facility

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
Yes	38	**38.78%**	25	**25.51%**
No	60	**61.22%**	73	**74.49%**
Total	98		**98**	

11. Respondents Using Computers in Vernacular Language

The use of vernacular language may be high among rural people. Considering this matter an attempt was done to assess the usage of computers in vernacular language.

Table 12. Respondents using computers in vernacular language

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
Yes	26	**26.53%**	38	**38.78%**
No	72	**73.47%**	60	**61.22%**
Total	98		98	

Table 12 shows that majority of the users are relying on English language usage with a majority of 73% in Kannavam and 61% in Thavinjhal. Vernacular language usage is 27% in Kannavam and 39% in Thavinjhal. It is found that Thavinjhal village is using vernacular language more than Kannavam village people.

12. Purpose of Availing Internet

An attempt was done to elicit the purpose of using internet services. Table 13 shows the analysis.

It is evident from Table 13 that most of the respondents from both villages are utilizing internet services for entertainment purposes only.

Table 13. Purpose of availing internet

Response	Kannavam Village		Thavinjhal Village	
	Number of Respondents	Percent	Number of Respondents	Percent
Education	43	**20.98%**	36	**16.98%**
Entertainment	76	**37.07%**	80	**37.74%**
Communication	72	**35.12%**	84	**39.62%**
Other Purpose	14	**6.83%**	12	**5.66%**

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13. Social Media Usage Among Tribes

An attempt has done to identify the social media usage among the respondents. Below given figure below shows the usage statistics.

Figure 4. Social media usage statistics
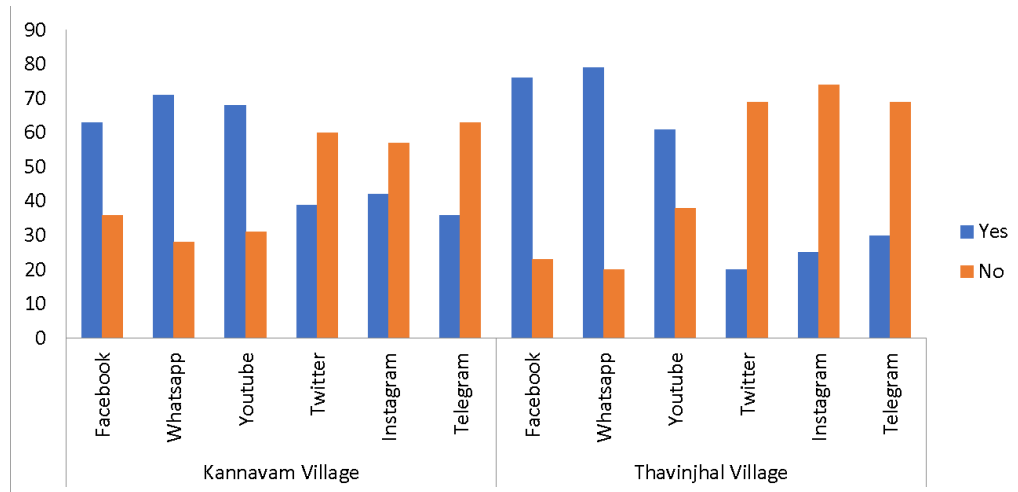
It is very clear from the above figure that most of the respondents are using WhatsApp as their communicating and entertainment social media. An associated relationship is visible in the usage of social media in both villages. Pearson Chi-Square test result showed a Chi-Square value of 48.078 in Kannavam village and 139.241 values in Thavinjhal village. From the analysis, it is clear that people are spending more time on WhatsApp in both villages.

FINDINGS

The comparative study of the digital divide in Kannavam and Thavinjhal villages was revealed that the same responses are expressed by both village people. It may be the reflection of inequality of services given by the government. The digital divide is not only digital exclusion it is also the lack of skill, material access, use of Information and Communication Technology gadgets and facilities. The primary objective of the study was to find out the factors affecting the digital divide in both villages. So many variables are taken to analyze this factor. It is found out that education qualification is a major factor seen in these villages. Low literacy skill among the tribes hinders to accept developments at its true pace. Thavinjhal village showed a higher illiteracy rate compared to Kannavam village. Compared to other parts of Kerala state these two villages showed a very pathetic literacy rate. People who followed higher studies are also very low. This is the crucial factor behind the digital divide. Another factor adversely affecting this phenomenon is the low-income rate. Economically backward people could not acquire even their computer or even a smartphone. Accessing the internet will be a question in front of them. More

poverty rate is seen in Thavinjhal village compared to Kannavam village. Educational qualification is also very poor in Thavinjhal village. This is reflected in the low-income rate in this village.

While finding the barriers of internet access in both the villages, it is seen that almost majority that is above 80% people from both villages don't have own computers. A positive hike can be seen in the ownership of mobile phones in both villages. The majority of the people own mobile phones. The landline telephone connection is more in Thavinjhal village but only 1% of the people from Kannavam had a landline telephone connection. Another barrier to the digital divide in both villages is that 70% of people from Kannavam village don't have computer knowledge. Most of the people from Thavinjhal village that is 80% don't have computer knowledge.

The impact of mobile phones on internet access was analyzed by considering the number of people who have their computers, those who have a landline or mobile phone connections, and so on. Respondents having an internet connection and assessing cost, speed, and usage of internet connection were also analysed. All these data are almost similar in both the villages. All the parameters influencing the digital divide are in the hike in both the villages. Analytical data shows both the tribal village has to move quite very forward in socio-economic condition levels. The policy should be drafted to make all the necessary parameters to exclude the digital divide made free to the tribal people. A study has been conducted to find out the purpose of availing internet in both the villages. It is seen that both the village people are using internet connection for entertainment purpose. Social media usage has been accelerated the use of mobile phones among youngsters. The influence of social media paved the way for digital access more easily and user-friendly.

Bridging the gap in digital access and the digital divide is a matter which utmost care and need. In a democratic society, equality should be maintained in all its services to the citizens. Digital inclusion can be fostered by strengthening village libraries through providing free access and usage facilities to all public. Civic engagement through village libraries may be promoted and extension activities for digital knowledge and digital accessing also to be promoted at their maximum. Free Wi-Fi facilities should be popularized at village levels and the speed and quality of the internet connection should maintain properly. Digital inclusion of tribal people is not possible without imparting skills like operational skills, information literacy, and information retrieval skills to search and retrieve pinpointed information. Apart from this, communication skills, content creation, and management skills, other strategic skills to operate the technologies for personal and professional development need to be given to the public free of cost.

FURTHER RESEARCH SUGGESTIONS

The current study compared only the digital divide factors predominant in two tribal villages of Kerala. This can be extended to whole tribal villages and remote villages of Kerala to a global level also. An empirical study may be conducted to bridge the digital divide in remote areas.

CONCLUSION

A high spirit of enthusiasm from library professionals is needed to overcome the digital divide in rural areas of Kerala. India's heart lies in its villages. Development is possible only by empowering the rural

people with sufficient infrastructures and information literacy programs. While comparing both the villages' digital divide, it is concluded that both villages face almost the same inadequacies.

To summarize, the advancement of ICTs has significantly altered how people live and function and has been a driving force behind the growth of globalization of the economy. The digital divide exacerbates inequitable global wealth distribution and other social tensions. It transforms a lack of information into a complete lack of knowledge. Lack of information equates to a lack of ways to make money, and a lack of funds equates to a lack of access to it. Those that do not have access to ICT are unable to profit from it. For the disadvantaged, the digital divide creates a poverty loop. Secondly, developing countries face problems as a result of the digital divide. In addition, international organizations must financially assist developing and underdeveloped countries in their efforts to build ICT infrastructure. As well as provide opportunities for skilled staff from these countries to study advanced technology and receive training in developed countries. The international digital divide is narrowing, which not only reduces the difference in national power between countries but also helps to balance global economic growth. Above all, the digital divide is a critical topic that requires utmost focus for the socio-economic-political development of the country. National Digital Literacy Mission working in India could bring much improvement in digital literacy. Though, several programs and policies have initiated from the side of the government are not reaching the grassroots. On the other hand, the tribal people should empower psychologically to accept these modern technologies in their life and try to cope up with e-governance in the country. Civic engagement through rural libraries can do much to bridge the divide among the rural and urban people.

All the rural libraries need to be empowered. Sustainable development can be possible through community engagement programs channeled through rural libraries. The geographic, demographic, economic, social, cultural, and psychological barriers are left behind the digital divide. When the authorities could surpass all these hurdles, then only the bridging of the digital divide in rural areas will be successful. To eradicate the digital divide government should focus on the barriers of the digital divide listed in this study namely literacy, access, language, education, etc. The policy should be drafted by the collaborative decisions of social scientists, technologists, library professionals, economists, etc. to overcome the issues which hamper bridging the digital divide.

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Chapter 8

Human Rights Literacy (HRL) to Promote and Sustain Attitudes and Behaviours Supportive of Social Justice

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ABSTRACT

This chapter explores what Human Rights Literacy (HRL) involves and how it establishes and develops improved rights of the citizens supportive to social justice in the society. People with different cultural backgrounds have the fundamental right to be literate members of society. However, due to various cultural influences, this right is somewhat restricted to certain individuals. For example, girls' education has become controversial in some lands. There are still instances in some cultures where people of all walks of life, such as LGBTI, Blacks, Indigenous people, migrants, etc., are helpless in the face of their rights. Thus, legal literacy and its unique component of human rights literacy are essential to ensure the protection of human rights. A theoretical framework is eventually drawn up by summarising the findings of the study.

INTRODUCTION

This chapter discusses the placement of HRL to protect human rights in a changing global environment and unexpected and expected actions that could lead to human rights violations. Among the desired actions, diversity, resentment, inherited difference, marginalisation, and violence are the main factors. These actions relate to living realities within the gap between history, cultures of memory and human rights ideals. HRL is structured between the ideals of human rights and the non-realisation of rights in everyday life. Given the crucial role that the United Nations aspires to play in HRL, the lack of essential tools, institutions, processes, and significant education on the consequences of democracy increases the

likelihood of becoming a victim of human rights violations. The classroom-based counselling platform is one of the leading centres for international human rights culture due to its unique ability to evoke moral empathy. Accordingly, Human Rights Education (HRE) promotes HRL, that is, history, values, concepts, engagement with key documents and organisations essential to democratic values and aspirations, especially the principles of human dignity, equality, non-compliance and justice. Teacher education should contribute to the HRL of teachers so that they can move towards equality. Teachers are not the only professionals positioned to promote equality, and no one needs to be a professional to be an agent of change. Therefore, HRL can motivate students entering careers and professions to transition wherever they face human rights issues in general. Literacy is never the primary objective of education but a vehicle for the public good, at which the oppressed can reach a critical juncture, often looking out for legal assistance for redressing the affected individuals. Through a comprehensive literacy project, those engaged in learning in the teacher-student / student-teacher dialogue can easily face for HRL challenges, violations and analyse society. They gain knowledge of human rights positions in the global arena and derive generative themes from being studied from narratives of their own experiences. HRL education allows people to become fully human, understand structures, and gain a better understanding of the functions of society that limit them on the path to liberation. However, any HRL programme needs to be critically examined from a fundamental perspective to protecting human rights and be in line with the needs of the rights of the abused individuals.

The Motivation of the Chapter

This chapter explores what HRL involves and how it establishes and develops improved rights of the citizens supportive to social justice in the society.

METHODOLOGY

A two-pronged methodology was undertaken: The Systematic Literature Review (SLR) approach (Rousseau et al., 2008) to perform a first selection of the most related papers to be included in the analysis, and Citation Network Analysis (Hummon & Doreian, 1989) to perform a second selection based on citations to delve into the process of knowledge creation, transfer and development. A new methodology was derived from the combination of these two methods: Systematic Literature Network Analysis (SLNA). These two methodologies, i.e. SLR and CNA, are integrated into the research process as illustrated in Figure 1 described by Colicchia and Strozzi (2012).

ANALYSIS AND DISCUSSION

Notions of the Literacy

Literacy is defined as "the ability to read and write" (Barber and Oxford Reference Online, 2005); thus, literacy means becoming a full member of the written language community (Zariski, 2011). However, from a practical point of view, being literate means going beyond the basic ability to read and write. The International Adult Literacy Survey (Kirsch, 2001) defines it as the ability to understand and use

printed information in everyday life, at home, at work, and in the community, achieve one's goals, and develop one's knowledge and skills. In a more pragmatic lens, literacy in practice is the ability and/to read and comprehend information and put that understanding into practice. Literacy other than reading and writing is oral literacy that has been used by individuals for centuries.

Figure 1. Methodology used in systematic literature network analysis (SLNA)
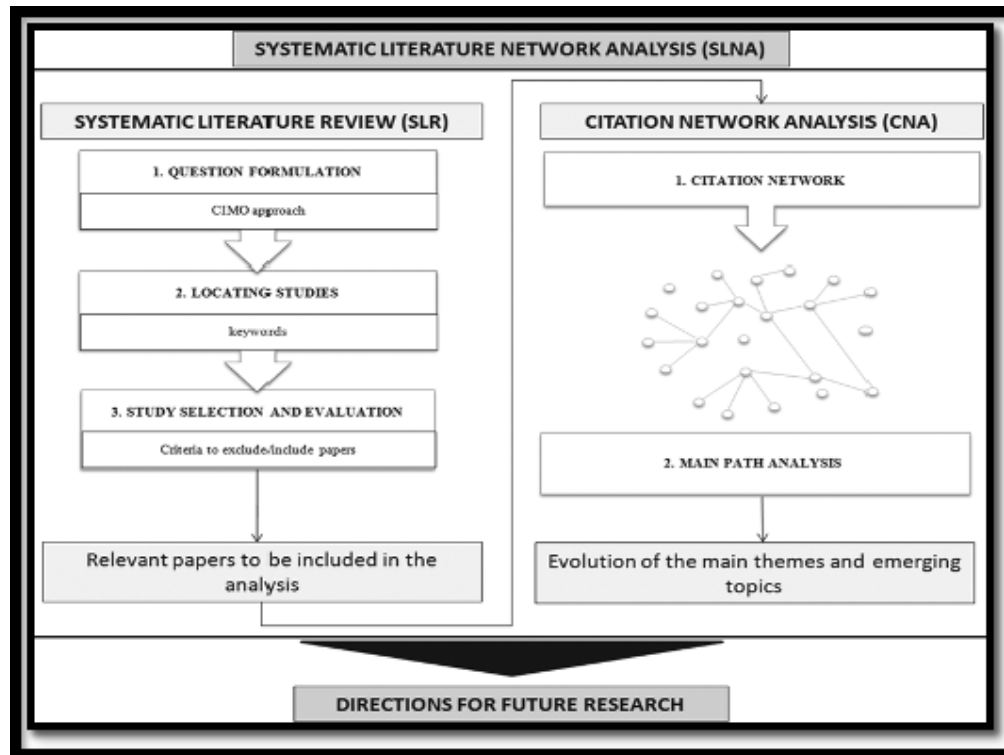
Oral literacy is transmitting cultural knowledge and information from one person to another or from one person to many through speech. The mode of communication can also refer to the oral tradition. Tradition means something passed down from generation to generation. Oral transmission is through speech and word. Oral tradition is used to distinguish between writing information given through speech, song or representation of writing. Despite extensive literacy and modern electronic record keeping, the oral tradition is still the most widely used form of communication in almost every society and every country in the world. However, what one person writes can be heard aloud by others, and what one person speaks can be quietly read by others. Accordingly, there is an unbreakable link between communication and literacy. The concept of literature is unique to members in the literate society, and the majority are taught to read, write, or memorise to ensure accuracy, longevity, and ease of access to information. However, literature in oral form has long been cared for and is familiar to any population, anywhere and anytime. It can be introduced as oral literacy. Thus, more attention was paid to the interaction between literacy and speech. A well-known statement made by Bloomfield (1933) is that ritual is not a language but a method of recording language by visual marks. Language is its 'symbol', and 'symbol' is its language.

Through the intricacies of the medium of communication, oral and symbolic literacy has brought to the world human cultural traditions, know-how and technologies. Great works such as ancient architecture, art and literature have developed in this way. Literacy is powerful because of its power as a support or alternative to memory.

Oral literacy is a tradition that can be preserved indefinitely in writing and tradition. However, it contributes more to the world than any other recording device currently available. Considering the dynamics of oral literacy allows one to be sensitive to cultural differences. In any society, Western, African and Asian, we have seen a gradual change from oral literacy to writing literacy (Havelock, 1991). Literacy has changed relatively recently for the life of the language, technical advancements and instruments, but literacy remains forever associated with society. Street (1984) points out that literacy as multiple literacies. He stressed that multiple literacies distinguish between an autonomous and an ideological model.

Autonomous Model

In the autonomous model, Steert (1993) considers literacy to be technically independent of the social context. In this idea, literacy is simply a cognition process, allowing people to read and write printed texts regardless of their socio-economic status accounted for their illiteracy (Street, 2006).

Ideological Model

Also, literacy is a process that varies from one context to another context and from one culture to another culture (Street, 2006). Street calls this an ideological model. Literacy is thus tied to cultural, contextual and power structures in society (Street, 1993). Accordingly, this model describes that literacy is seen as a social practice rather than a technical skill. It is a process of knowledge, and how people address reading and writing are rooted in the concepts of knowledge, identity, and existence (Street, 2006).

Literacy, therefore, provides a tool for a better understanding of how people interact within their communities and concerning their social context. In this sense, literacy empowers people by allowing them to communicate, interact, influence and communicate with others. With the words of Paulo Freire, "reading the word and learning how to write the word so one can later read it are preceded by learning how to write the world, that is, having the experience of changing the world and touching the world" (Freire & Macedo, 2005, p.33). Literacy, therefore, goes beyond the cognitive process of acquiring specific technical skills. It considers the environment and the circumstances in which people live and does not hesitate to better understand the world and finally change. In other words, literacy is a social practice that requires a cognitive process to understand the printed text. Nevertheless, it cannot be separated from the existing socio-cultural context around individuals and societies.

Legal Literacy

The Canadian Bar Association (1992) defines legal literacy as the ability to understand words used in a legal context, draw conclusions from them, and apply them in day-to-day life (p. 23). However, Laird Hunter (Canadian Bar Association, 1992) points out that legal literacy involves individuals capable of leading themselves through a process they understand. The crucial aspects of this process are; the recognition and enforcement of their legal rights and responsibilities, recognition that a conflict is a legal one and can lead to a legal solution, Knowing how to avoid legal issues and how to get appropriate help

when that avoidance is not an option, knowing how and where to look for legal information. Hasan (1994) describes legal literacy as a process of self and social empowerment. It serves to enforce women's rights and redefine and reshape those that are not legally and practically expressive.

According to some scholars that legal literacy is essential to prevent unconstitutional acts, identify instances of violations of the law, point out decisions and policies, which are contradictory to the law, understand and take into account the rights of the individuals needed for a disciplined society (Schimmel & Militello, 2007). It should analyse legal literacy in the context of education so that it can gain an understanding of students' knowledge of the law. In addition, literacy initiatives can be used as a way to increase the awareness of the people. Schimmel & Militello (2007) point out that this helps to explore and identify what society needs and what the law needs to know. It is also an excellent opportunity to identify possible ways to train future generations. Furthermore, by analysing the concept of legal literacy in education, education leaders, curricula designers and policymakers can gain a deeper understanding of what students already know and the impact that this knowledge on their daily behaviour. In addition, literacy deficiencies can be appropriately modified by understanding the potential pitfalls of using this knowledge daily when students become adults and find difficulties appertained to their legal rights. Redfield (2001) states that people with knowledge of the law are more likely to avoid unnecessary litigation and reduce their liability through various adjustments while being more likely to take legal action in cases where they are bluntly violated on issues such as social values, norms, practices and justice.

Various institutions and organisations are engaged in literacy education to increase people's literacy at all levels of the population. However, basic literacy may not be sufficient for an individual to adapt effectively to a legal system. Individuals with basic literacy should strive to acquire legal literacy. Council of Canadian Administrative Tribunals (2005) states that "even if people with low literacy have found a way to cope with their daily routine, they find it very difficult to read, understand, and use material related to legal problems. They do not understand the concepts contained in words, even if they understand the words themselves. Therefore, they cannot understand what is expected of them and often the implications of what is being said" (p.11).

Initially, the term legal literacy was used as a branch of vocational law education. Being literate means making legal arguments, summaries, opinions, judgments, and laws as a lawyer or a legal professional. Later, this concept changed to have a broader meaning, even for those who are not regulars, gaining knowledge of the law. Legal scholar James Boyd White followed this approach. He meant the level of competence in legal discourse that is increasingly necessary for a meaningful and active life in society. Another law writer, Bilder, Mary Sarah (1999), describes legal literacy as the "spectrum of functional skills" relevant to litigation. According to the continuing approach, productive participation in modern society requires a certain level of legal literacy but does not require the average citizen to reach the professional standards traditionally needed by legal professionals.

In any society, a code of ethics has been developed or occurred spontaneously to regulate how people act in their community. It can be expressed in various ways such as rules, bills, constitutions, regulations, policies etc. These are therefore closely linked to literacy. The principle of these mechanisms is that people in society are expected to understand and comply with universally agreed-upon laws and ethics through reading, studying, and understanding. This code of conduct guides society, making people literate about these standards and making them part of the accepted legal system in the society in which they live (John Howard Society of Canada, 1996). Therefore, legal literacy, which is intertwined with society's cultural and power structures in line with the ideological concept of literacy, can be seen as developing awareness, critique, and understanding of the social context to bring about personal and social change.

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Individuals who do not understand the law are unable to defend the rights of themselves and other members of society and may face lawsuits for their immoral actions. Due to a lack of legal knowledge, they are afraid to face lawsuits without knowing what to do to protect themselves and thus suffer mentally and physically. They have apprehension about communication and resilience due to oblivious to the law, legal limitations of their responsibilities (Sharif, 2004). While people should not be afraid of the law, it is necessary to use the law to provide a formal, active, productive and humane basis for the continued existence of a democratic society (Wagner, 2007; p. 4). Thus, legal literacy minimises further exposure of individuals to the unwarranted rule of law in the legal system (Schimmel, & Militello, 2007; p. 275). Legal literacy as a legal counterpart allows a sufficient level of legal literacy to keep people out of court. People with legal literacy need to know the law of the land and the regulations governing their profession and judicial decisions. It is clear that knowing about rights and responsibilities, especially about human rights vested by the country's constitution, has a significant impact and contribution to living a just life in society and education, and many more need to understand interest. Everyone is entitled to these rights without discrimination.

It is essential to mention street law when talking about legal literacy. Street law has become a worldwide movement aimed at educating the public about the laws that apply on a daily basis and developing the critical thinking skills of individuals. Street Law is a programme to improve legal literacy targeting vulnerable communities, such as high school children, prisoners, women and minors, and community leaders. It is an integration of successful and counselling strategies to empower people through legal education. Street law programmes teach relevant law and legal status to the community in a non-legal language, using interactive learning methods, especially human rights law and democracy. Street law introduces law students to the public's understanding of law and justice in the country and engages in critical thinking about the practical aspects of the law. In many countries, street law is a series of formally included courses in the university curriculum. In some countries, such as Bangladesh, law students are willing to volunteer with the community. They learn how to serve, provide legal aid, improve their legislative and advisory skills, and ultimately transform law into an easy tool to enforce the rights of laypeople. Street law was started in 1986 as a pilot project for six months at the University of KwaZulu-Natal in Durban, South Africa, with the support of the Law Society (McQuoid-Mason, 2008). The programme was integrated into the university curriculum as an alternative course. Final year undergraduates of the university ran street law clinics. An independent medical-legal unit focused on training various groups in forensic services, especially on crimes against women and children. The development of street law in Bangladesh is associated with Professor David McVaid-Mason. In the early 1990s, the University of Dhaka introduced the Clinical Law Education Programme as a law education reform programmeme. The law clinic focused on students' legal education, mock trials, and the practical side of the courts. The context was set for the introduction of the law clinic as a vehicle for street law. In countries with a hugely illiterate population, such as Bangladesh, there is a particular need to educate the public about the rights of the people to protect human rights at least vested by the country's constitution. Ideas on rights and duties, the constitution of Bangladesh, human rights and fundamental rights, equality and discrimination, children's rights, women's empowerment, minors, marriage and divorce, and domestic violence were widely propagated legal clinics in Bangladesh.

Human Right Literacy

The concept of HRL has been a fundamental component of rights education (Roux 2012) since 2008 as a prerequisite for human rights education. Roux explains it as:

My reasoning is that the ontology of HRL and developing an understanding of the I and the other merge these two notions as processes in human rights education. There are human rights issues which are universal and can be, as such, morally bound to international declarations and constitutions and applicable to all humans. On the other hand, there are also particularistic understandings of human rights issues, and people respond differently in their cultural and/or religious communities and environments to these issues. (Roux 2010:999- 1000).

Roux and Du Preez (2013) define HRL as competence that constitutes understanding the processes and implications of human rights in social contexts (Roux & Du Preez, 2013), reiterating both cognitive skills and social practices. Simmonds (2014) points to the contentious use of the concept 'literacy' as either a cognitive skill or a social practice. Literacy as a cognitive skill will include knowledge of human rights documents, the remedies available and the values inherent to human rights. Literacy as a social practice alludes to how humans act, re-act and inter-act on abstract human rights documents within specific socio-cultural contexts (Simmonds, 2014:143-144)

HRL is geared towards conforming to the dominant dominance of international law and politics. On the other hand, HRL has led to rebellion against global domination through multiple conflicting and unsatisfactory resistances. Scholars argue that the natural school exists as a clear law of human rights (Donnelly, 2013). Scholars at the deliberative school argue that human rights compromise the political values and principles enshrined in the Constitution (Donnelly, 2013). Although both deliberative and natural conceptions are based on human rights law, they provide a political, global and local "code of conduct" that treats human rights as agreed. Natural school is based on negotiation and consensus, which is different from deliberative school-based rights statements. Nevertheless, both schools accept the paradox of possession and offer law and/or compromise as an answer (Donnelly, 2013). The static location of natural and deliberative schools for HRL in HREimplies knowledge, skills and values. Emphasis on the vertical application of human rights, that is, the legal responsibility of the nation-state for the rights of citizens, is referred to as political literacy (Simmonds, 2014; Becker et al., 2015). Political literacy assumes that citizens have adequate knowledge of rights. HRL offers the potential for transformative change in human rights and human rights education. HRL is structured between the ideals of human rights and the non-realisation of rights in everyday life. The paradoxes of human rights learning are inherent in the "myth of pedagogy" (Biesta, 2015). According to this myth, the ignorant as an unequal and unaware party must learn from an authority that knows human rights. Socialisation discourses are studied assiduously by socialisation discourses that focus on consensus and allow for rebuilding a failed scope. HRE confirms the inability of traditional education to activate learning scops and socialisation discourse. The potential of HRL lies in the fact that the matters of rights become aware of the impact of human rights daily in their unique space and become active in rights through subjugation.

Human Rights in the Education Domain

HRE is a deliberate practice of shaping the content, attitudes and skills of individuals, groups and communities that encourage the recognition, promotion and protection of human rights (Amnesty International, 2005; Lister, 1991) and cognitive, influential and behavioural characteristics. It is a process

that can be changed by understanding human rights (Martin, 1997; Tibet, 1997). From the beginning to now, HRE has had various 'face lifts' as part of its continuous development (Simmonds 2012). Mihr (2004:9) explains that HRE is more sustainable than all preceding peace, tolerance and anti-bias teaching concepts, and we should learn from the misinterpretation and short term impact of re-education, civic education and peace-education in the past, giving HRE its own notion. HRE is more than it aims to teach all people, regardless of their citizenship, ethnic background, legal status or if they have been former enemies and combatants

HRE is generally not limited to civil, political, economic, social, cultural, legal grounds for human rights, historical and contemporary human rights teachings, and various forms of human rights violations, efforts, historical and modern human rights endeavours, how human rights principles and concepts can be implemented in the classroom and beyond, and how individuals can develop opportunities for the promotion and protection of human rights, human rights actions and efforts that can be taken in case of violations etc.

The World Programme on Human Rights (2010-2014) considers HRE to have three dimensions:

1. Knowledge and skills;
2. Values, beliefs and attitudes; and
3. Action (UN 2010:4-5) as depicted in Table 1.

Table 1. The UN's three dimensions of HREjuxtaposed human rights stances

		UN's (2010) Three Dimensions of HRE		
Dembours (2010) Schools of Human Rights		**Knowledge and Skills**	**Values, Beliefs and Attitudes**	**Action**
	Human Rights Stance	Natural	Deliberative	Protest

UN (2010:4-5)

The United Nations' World Programme for HRE (2010) aimed to develop values, beliefs and attitudes across dimensions and strengthen attitudes and practices that protect human rights. Dembour (2010) explains that human rights thinking, values, beliefs, and attitudes are essential to human rights education. This thinking represents human rights as political values that societies choose to adopt. Thus human rights arise from social consensus. This will happen only when everyone worldwide is convinced that human rights are the best legal and political standards governing social rights (Dembour, 2010).

The United Nations (2010) defines knowledge and skills as learning about human rights and norms and gaining the skills to put human rights into practice in everyday life. Dembour (2010) calls it the Natural School of Human Rights because people have the rights because they are human beings. Tibbitts and Fernekes (2011) state that human rights in HRE are expressed through legal and normative dimensions.

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The lawful extent contributes to the underlying principles of natural rights. In human rights education, the natural school as a legal construct is bound up with the knowledge of human rights and the rights of citizens because they all are human beings. People cannot exercise their rights without knowledge of the legal obligations of the state and the rights of individuals. In addition to deviations from social, political, and economic rights due to a lack of knowledge, individuals may have only a partial or superficial understanding of their rights (Simmonds, 2010). This can lead to a paradox of human rights knowledge, excluding participation and partial to limited human rights knowledge. The promotion of universal human rights depends on awareness of the citizens' rights and active participation.

Human rights thought has deliberately contributed to shaping the standard dimension of schools in human rights education. It seeks to translate the lives and realities of individuals and societies in a way that is more in line with human rights norms and values (Tibbitts & Fernekes 2011). This means less focus on different curriculum-based knowledge and more emphasis on the standards and values which underpin them. The final dimension is 'action' (United Nations 2010, p. 5) in the form of steps to protect and promote human rights in the United Nations World Programme on Human Rights Education. Protest scholars view human rights as 'fighting' rather than granting, agreeing or speaking out (Dembour, 2010). Thus, according to protest scholars, human rights are subject to human rights violations, and therefore human rights are recognised for challenging, fighting and disrupt injustice. In doing so, the human rights tradition promotes a process that favours the aristocracy, and there is a tendency to 'view human rights law with suspicion' under the guise that it may primarily embody the idea of natural human rights (Dembour, 2010). Protest scholars, however, advocate for the internalisation of human rights about themselves and others (Dembour, 2010). This underscores their desire to use HRE to clearly and implicitly connect human rights violations and gain a greater understanding of human rights injustices.

In sum up with the discussion, Figure 2 shows the definition of the potential of HRE to include knowledge and skills, values, beliefs and attitudes, and action. In a democratic education, all three dimensions must be adequately addressed. Tibbets and Kerchsleger (2010, p. 21) argue that taking steps to change the behaviour of interpersonal relationships should fill the "active" gap between human rights awareness and knowledge and participation in the political arena. However, it is questionable how much change especially transformational change that HREcan makes to society.

Figure 2. The UN's three dimensions of human rights education
(UN, 2010)
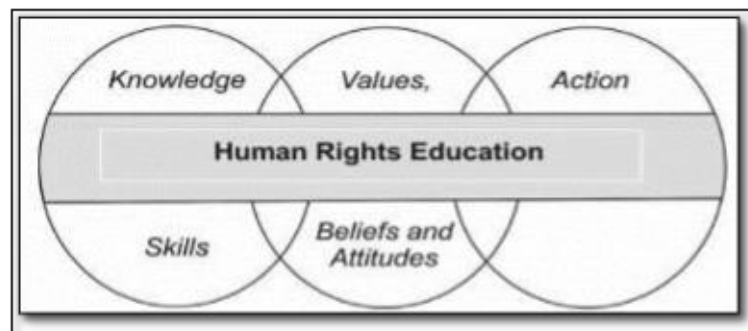
Instead of teaching human rights challenges and their history as a subject of study, it is worth asking what role teachers can play in inculcating HRL in education and giving students an understanding of human and fundamental rights. Greg A Mullins (2015), who has been teaching human rights for many years at the university level, describes how human rights are a significant theme in his classes. Primarily, any inquiry into human rights is based on issues that affect the lives of citizens and threats of those who have experienced violations, migration backgrounds such as well-being, property and care, or communities that have historically lost their rights.

UNESCO's work in HRE is structured in the broader context of assisting member states in reforming and implementing inclusive education policies to ensure quality education for all. Human rights-based education imparts the skills needed to promote, protect and enforce the human rights of people in everyday life. There, respect for human dignity and individual equality is fundamental to human development and contributes to further inclusive societies and democratic decision-making. The government and NGOs play a crucial role in implementing the World Programme on Human Rights Education, adopted by the United Nations General Assembly in 2004. One of the main objectives of the World Programme on HRE is to encourage member states to take a holistic approach to HRE efforts. In this regard, with financial support from Italy, Albania, UNESCO has supported the implementation of HRE curriculum development, in-service teacher training, school policies, and the implementation of a broader school community. In order to facilitate the inclusion of HRE in the curriculum of schools and higher education institutions, the core competencies for high schools were discussed with the regional Organisation for Human Rights Defence, Democratic Institutions and the OSCE Office, other intergovernmental organisations and HRE specialists. There, basic human rights standards such as the Universal Declaration of Human Rights and the United Nations Convention on the Child's Rights (UNCRC) were adopted. Special attention was paid to the Convention on the Status of Refugees, based on the national context and the rights to child protection, applicability in conflict, disaster and poverty, critical human rights challenges, and contributions to support / interference with human rights. Enjoyment in schools, communities, current and historical human rights issues, the context of human rights and the human rights movements in the world, and the attitudes/values of individuals and groups who have contributed to the defence of human rights, self-respect and the respect to all others were some of the learning outcomes of human rights teaching. It was further introduced that it is a matter of protection of human rights and not to treat individuals by differences including but not limited to the recognition of human rights of people, ethnicity, language, age, disability, gender, religion or belief, identification and recognition of people, ethnic or social origin, property and many other differences. They were learning to enhance inherent prejudices and human rights endeavours and conquests, openness to reflection and alignment with the individuality of behaviour, suffering from human rights violations and developing empathy and cooperation with victims. Although perhaps the most popular HRE programmes targeted the school sector, HRE was informally taught in training programmes for young and at-risk populations and professionals such as teachers. International NGOs and local NGOs have been involved in the school sector HRE in collaboration with the relevant education departments in various countries since the 1990s.

Some countries report some inclusion of HRE in national curriculum frameworks. Nevertheless, the quality of implementation and the content and depth of the HRE curriculum are rarely studied and researched. The Ministries of Education in many countries are pushing for specific policies that encourage a "transcendent" approach to human rights, with a framework that connects human rights values with existing subjects and school practices. Teachers are often trained and educated on human rights with the help of NGOs to cultivate the value of human rights among students. Schools in South Africa

and the United States have traditionally provided students with an understanding of civil and political rights through the Constitution and the Bill of Rights. US students understand social movements, such as the civil rights movement and sometimes women's rights, during their school years. However, these activities do not cover all the rights that are enshrined in the Universal Declaration of Human Rights and the wide range of international and national standards. The people of the United States generally equate civil rights with human rights without understanding how global human rights work and how they relate to their lives. In September 2011, HRE Associates, in collaboration with Harvard University in Cambridge, Massachusetts, organised a conference on "Building a Strategy for HRE in US Schools" in the United States. Its counter-draft is a national strategy, with the US Human Rights Educators Network having nearly 500 individual and corporate members. The standardised content of HRE is related to principles that can be applied to everyday life in school. Its primary goal was to provide every child with a human rights education, including equal respect and meaningful participation. It taught them to make decisions that affect their interests, be free from all forms of violence, and respect language, culture, and religion (Craissati et al., 2007). HRE nurtures participatory, self-expression, communication, collaboration, and group activities and disciplinary processes that ensure the human dignity of school and classroom students and the staff. The principles of human rights such as equality and discipline, participation and empowerment, transparency, and accountability are combined to form a value system that can be applied as part of a rights-based approach to everyday use in the classroom and policies and the system of practices. HRE gives individuals the skills, knowledge, and motivation to transform their lives and realities to reflect human rights standards and values in the obvious way of acts.

Among the remarkable achievements and obstacles of the early period, it appears that many countries have incorporated HRE into pedagogy over the past decade. HRE primary and secondary curricula often include a cross-curricular theme, an alternative curriculum, or an "achievable goal" of the entire curriculum. Human Rights There is also a continuous stream of human rights issues initiated by NGOs and schools and teachers in many countries (Elbers, 2000). As part of the National Action Plan, the Croatian government, NGOs and teacher training institutes organised a series of seminars for teachers and principals and prepared textbooks and manuals to introduce HRE as a cross-curriculum. HRE is included as an alternative subject in all schools, i.e. primary and secondary schools. The Austrian government has established a unique service centre for HRE as part of the United Nations Decade for Human Rights Education. The HRE Service Center offers a series of training courses and counselling services for teachers. The NGOs on HRE in Belgium played a major role in promoting the United Nations Decade for Human Rights Education. Sustainable Human Rights Communities were established in Argentina, India and Senegal to develop communities around the world. The Cambodian Ministry of Education launched a massive HRE project with the full support of the UN agencies and other organisations. The project aims to train 71,000 Cambodian teachers to teach their students human rights. Georgia's Quality Basic Curriculum Framework (Banks, 2001) includes statements on human rights issues in various parts of the world. It also analyses the difficulty of developing and enforcing international human rights standards. It provides an insight into the phenomena of the 20th-century genocide, such as the Nazi Holocaust and ethnic cleansing. Kansas (Banks, 2001) called on Grade 11 students in world history to analyse their struggles for human rights in ideological, nationalist, religious, and regional conflicts. The Content Standardisation of New Mexico (Banks, 2001) is to understand the role of global relations and interdependence between individuals, groups, societies and nations. Measures have been taken for various grade levels from grade 9 to grade 12 to measure the performance of that standard.

The Practical Aspects in HRL and HRE

The Universal Declaration of Human Rights, adopted on 10 December, 1948, proclaimed human rights as universal values and called on all nations to promote respect for human rights and freedoms as the basis of justice and peace through teaching and education. This means that the world is still imperfect and unjust and that human dignity and human rights abuses continue to be a reality. Political rights, heads of state and political elites, and personal worldviews and preferences directly and indirectly, affect human rights education. Since the Universal Declaration of Human Rights in 1948, the United Nations and UNESCO have consistently called on governments to raise public awareness of human rights and distribute international human rights treaties in schools and universities. Several universal and regional documents confirm the right to human rights education. These include the 1948 Universal Declaration of Human Rights, the 1966 International Covenant on Civil and Political Rights, the 1990 international Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, and the 2007 Convention on the Rights of Persons with Disabilities and the European Convention on Human Rights (ECHR). These documents recognise that everyone has the right to seek, receive and circulate information and ideas that certainly include knowledge of human rights and freedom.

LGBTI deeply ingrained homosexual and transphobic attitudes are often combined with sexual orientation and gender, homosexuality, bisexuality and transgender people of all ages and regions. Their human rights abuses are more or less happening all over the world today. In the labour market, in schools and hospitals, they are harassed even by their own families. Physical assaults, isolations, sexual harassments, tortures, and murders are still commonplace in some lands. In some countries, different laws are used t****o punish transgender people based on their gender and expressions. In 77 countries, discrimination laws have led to the arrest and prosecution of homosexual individuals and imprisonment and the death penalty in at least five countries (Moyn, 2018). In recent years, many states have made a concerted effort to strengthen the protection of human rights for LGBTI people. A new set of laws has been enacted, including a ban on discrimination, ties to homosexual and transphobic hate crimes, the acceptance of homosexual relationships, and the provision for transgender people to obtain official documents reflecting their preferred gender. Training programmes have been set up for police, prison staff, teachers, activists, and others, and awareness training has been implemented in many schools to stop bullying these students and people.

There are also theoretical and political processes that have been used to exploit the traditional lands of the aborigines, the narrative and colonial expansion of the aboriginal history, the genocide and harassment of the aboriginal cultural assimilation, and the exploitation of the most advantageous group of people of society. It is based on individuals' beliefs, attitudes, fears, behaviours, and actions based on racial bias. Individual / personal racism is a firm, solid and senseless belief that white is superior. They maintain racial inequality. Establishes white supremacy—Harms people based on colour. Institutional/ systemic racism is the formulation of policies that generate different approaches for people of different nationalities. Dr. Moya Bailey (Bailey, 2021) describes the stigma attached to black women. Compared to women of other races, blacks can understand the unique violence experienced by their race, colour and gender. Representation and institutionalisation of masculinity and/or masculinity over women and/ or femininity in the private and public spheres of housing, political, religious and social institutions, sports, etc., judgments based on race appear to infringe on the fundamental rights of one human group.

Racism is different from prejudice, hatred or discrimination. This is because one ethnic group has been given power and superiority over other groups in society. Institutional structures and policies,

cultural norms, values and personal practices often and indirectly support and perpetuate racism. Immigrants who clearly or implicitly reflect any attitude, behaviour, practice, or policy are believed to be inferior to the dominant group. It is a function of white supremacy and is a reflection of interpersonal, institutional and systemic violence. Marginalised workers - namely women, LGBTI, black ethnic, aboriginals, immigrants and disabled, are more likely to be harassed by people from socially advantaged groups. According to Canadian Occupational Health Specialists Katherine Lippel and Annette Sikka, psychosocial risk factors at work, including mental harassment, affect women equally (Lippel & Sikka, 2010). The majority of sexual abusers are men, and both women and men experience sexual violence, and the majority of victims are women (Linda et al., 2012; Style Einson et al., 2010). A 2003 meta-analysis of 86,000 US respondents reported that 24 per cent of women were sexually harassed in the workplace (Ellis et al., 2003). A 1993 national survey on sexual harassment in Canada found that 23 per cent of Canadian women experienced work-related sexual harassment (Johnson, 1994). High exposure to harassment in the workplace, including targeting obscene comments and making their work duties and activities difficult. Harassment of workers with disabilities or long-term health problems is one of the leading causes of such harassment (Einarsen et al., 2010).

Russian scholars, intellectuals and human rights defenders cannot be indifferent to HRE issues. The introduction of human rights into the curriculum of education has a significant impact on the international obligations of the Russian Federation to withdraw from participation in human rights treaties. According to the results of a survey, 53.9% of respondents believe that the main factor in the HRE of Russian society is the solid conscious position of power - the fewer people know about their rights, the easier it is to control them (Moscow School of Human Rights, 2008). The lack of demand for human rights knowledge and the mechanisms of their protection among most citizens, the indifference to their rights and the low level of political and legal awareness create objective barriers to introducing HRE programmes. For these reasons, many people are not tempted to study or know their rights. The percentage of people interested in raising awareness about human rights at their own discretion can be estimated at 10-12% of the country's active population (Moscow School of Human Rights, 2008). In 1994, the 49th Session of the UN General Assembly adopted the Action Plan for the United Nations Decade for HRE 1995-2004. Many states have adopted national HRE plans in line with UN recommendations. The Russian government has not responded in any way to this global outcry. It never informed the public, primarily about educational activists, about the decade. It never encouraged the relevant ministries and departments to implement the UN plan. It never developed or adopted national HRE programmes.

The primary purpose of HRL programmes for children is not to teach human rights knowledge or explain human rights practices but to raise awareness about the rights of citizens. Guidance is essential to protect their rights, respect the rights of others, and raise awareness of human rights in confidence, self-esteem, liberty, equality, and justice, as well as the ability to resolve disputes logically. In this regard, the United Nations Declaration of HRE and Training states that HRE and training should use new information and communication technologies and the media to promote all human rights and fundamental freedoms among the country's citizens. Here, children should be given guidance to help them make the right choices independently. In the case of HRE in France, "Juvenile Parliamentarians' Day" was designed to enhance children's ability to participate in the discussion and administration of public affairs in the future. Primary and secondary school children experience this event and give positive importance to developing their ability to participate in problem-solving and raising their awareness of the rules, responsibilities and equality. In addition to these activities, schools and teachers can be guided to experience the meanings and values of human rights in school life and outside of school. Human rights

groups, human rights training communities, etc., provide students with the opportunity to study human rights issues and participate in appropriate human rights practices.

Children's thinking is different from that of adults, and teachers must have a deep understanding of the mentality of children to tell the story of human rights with modern educational and technological tools for HRL. Teachers should not use rough teaching methods in HRL but should use soft teaching methods such as storytelling, case simulation, role play, case studies, etc. Depending on the cognitive characteristics of the students, fundamental human rights events can be introduced into the classroom to develop students' ability to think about human rights. For example, a law enforcement website in Florida has launched an app called "Just Adulting" that links to relevant legal websites and applications of the Bar Association so that students can gain knowledge and understanding of the human rights awakening from an early age. It helps to change thoughts and desires as well as activities. In the context of China, HRL for children must also adopt modern technology and provide HREthat meets the demands of children, taking into account their characteristics and needs. In recent years, the Chinese Ministry of Education has emphasised the introduction of HREinto the classroom and has begun offering a series of ethics and law courses that have become the most critical carrier of human rights.

The Government of Japan adopted the DOWA Education Policy as far back as 1965 to emphasise the importance of equality and discipline against discrimination. A HRE programme has been in operation in Sri Lanka since 1983. In 1987, the teaching of human rights in schools became a requirement under the new Philippine Constitution. In India, the material for HREin schools was developed, and existing school textbooks were reviewed to remove sections that violate human rights principles and introduce new sections that discuss human rights.

In 2010, the Council of Ministers recommended and adopted the Education Policy on Democratic Citizenship and HREin Europe. The policy calls on member states to include education for democratic citizenship. It was pointed out that the objective of government policy and legislation dealing with HREshould be to enable everyone to receive instruction in their own territory for democratic citizenship and human rights. The role of HREin the protection and promotion of human rights in the Council of Europe was further strengthened with the establishment of the Office of the High Commissioner for Human Rights in 1999. The Commissioner is tasked with assisting member states in implementing human rights standards, identifying shortcomings in law and practice, and advising on protecting human rights throughout Europe, promoting education and raising human rights awareness. School children, youth, teachers and government officials need to be educated to encourage tolerance and respect for others. The focus is on preparing students for a disciplined society rather than developing life skills that embody human rights values.

Every Ministry of Education or similar institution was needed to create or expand a department or division responsible for coordinating the activities of all relevant parties and act as the National Coordinating Center for matters relating to HRE in the school education system. In considering the situation in Russia, it offers opportunities for HRE in some schools and universities now. Informal education in the field of human rights is also developing in a slower phase. Over the past decade, however, public awareness of formal and informal human rights issues has expanded. The objectives of teaching human rights are enshrined in standard documents and, unfortunately, educational standards, programmes, syllabi, etc., are not yet standardised. Government agencies in the Russian Federation have not yet directly focused on human rights education. The success of educational development in human rights is primarily due to the active stance of NGOs and enthusiastic teachers, not the clear and paradigmatic actions of official institutions of the government.

Professor Ban Wenshan (2009) discusses the basic concept of the universal culture of human rights under the heading "Developing a Global Human Rights Culture and Promoting HRE in China", that is, the needs, feasibility, basic approaches and requirements and disclosures for creating a universal culture of human rights for HRE in China. HRE has become a popular topic in the Chinese context today. This is not only a UN requirement but also a primary responsibility of the government. The Chinese government has focused on HREand has released two national human rights action plans that have served as guides to protecting Chinese human rights, including human rights education. HRE is essential to promote individual rights and dignity, facilitate peace, justice, and social unity, and ensure the state's long-term governance and security. However, there are many issues with HRE in the Chinese context - the lack of a well-compiled textbook series, qualified teachers and support for systematic theoretical research. In this case, several practical strategies must be used to successfully address these issues, such as compiling a series of foot books in China, accelerating the cultivation of qualified human rights specialists, and systematically establishing HRE initiatives. However, the cause of HRE in China is only the beginning and has to go a long way in many areas. Whether active or passive, HRE in China is driven by many motivations and is the basis of its development. On the other hand, there are various barriers to HRE in China, which can be frustrating for those who care about human rights education. Understanding the true meaning of HRE in China as a permanent member of the United Nations and as a country with a significant impact on world affairs is still in its infancy. HRE is not only relevant to China's international image and reputation, but it is also crucial for establishing the rule of law and the right to live with dignity and self-esteem of the Chinese people.

Through the curriculum, India seeks to develop cognitive skills and awareness from a human rights perspective, explain and develop values, and change attitudes among students on various human rights issues. Integrated and direct teaching approaches have been adopted for a variety of human rights needs. However, HRE's 'values and awareness model' seems to have failed to go beyond students' actual behaviour. Therefore, it often appears that students are well aware of their own and others' human rights but do not practice it in their behaviour. Teachers are often unaware of human rights issues and how they are taught. As a result, they are complicit in human rights abuses, sometimes failing to explain the human rights values and development among students. The accountability and transformative models of HRE ensure that learners are not indebted to human rights abuses. It is essential in this context that both parties recognise the human rights abuses and empower themselves to commit to their protection. Therefore, to provide a more humane and effective HRE today, teachers must be prepared through pre-service and in-service teacher education programmes using different models and strategies in their classrooms. Therefore, creating a culture of respect for human rights and creating a sense of human responsibility should be the primary focus of human rights education, whether at home, in the community or at school. The establishment of the Independent National Human Rights Commission for the Promotion and Protection of Human Rights by the Government of India reflects the true intentions of effective human rights activism. Social justice is a crucial element of the Indian Constitution. One aspect of it is gender neutrality. It is a human right of women. The value and equality of gender are protected by the Fundamental Rights in its preamble to the Constitution of India. However, many human rights cases of abuse take place in India. In December 2019, the government passed the Citizenship (Amendment) Act, from which only non-Muslim migrants were granted citizenship. This has led to human rights violations by the government encouraging discrimination based on religion.

Prior to the pre-democratic era in South Africa, public policy and education were based on Christian nationalist ideology. Religions, beliefs and values other than those promoted by the government were

ignored. The inevitable human rights violations of the people also took place at various levels. Following the first democratic elections in 1994, South Africa declared itself a secular state and introduced a new set of values based on human rights. The focus on human rights changed as a legal framework for human rights protection. The constitution clarifies that all South African citizens are expected to uphold the country's human rights values. This expectation was published in 2001 as a supporting document for the National Curriculum Statement of the Policy Statement on Values, Education and Democracy in the Field of Education. It gives those involved in education an understanding of the shared or collective human rights values enshrined in the constitution that the nation should value. However, in August 2004, questions arose about whether appropriate and sustainable strategies for teaching and learning human rights were being implemented in the school environment. The media reported a level of violence in schools, especially in South African society, where there was no widespread respect for human rights in classroom practices.

HRE in Israeli schools is a key component of the curriculum in community education in Jewish and Arab high schools. During the first year of the new millennium, the Ministry of Education decided to invest a significant amount of resources in community education and teacher training programmes on human rights (Gordon, 2012). According to a 2007-2008 study that sampled 5% of the population, 100% of high schools teach civic education at least two hours a week. These include student participation in school activities related to multiculturalism, nurturing dialogue between religious and secular populations, and community activities dealing with Jewish-Arab relations (Barak & Ofarim, 2009). Despite efforts to include HRE as a central part of the curriculum at all school levels, many Jewish youths believe that Israeli Arabs, who make up a significant minority in the country, should not have the same rights (Gordon, 2012). It should be noted that this view of the young Jewish Israeli persisted for many years.

In Islam, man has no rights because all rights belong to God and human rights reflect God's rights. Therefore, man cannot be free except by submitting to God. Islam is not only a religion but also a way of organising social life. Islamic laws are not comparable with the laws of non-Islamic countries in the world. Accordingly, the Memorandum on Muslim Principles and Human Rights in Saudi Arabia emphasises three points set out in Articles 16 and 18 of the Universal Declaration of Human Rights. Of particular concern is the inability of a Muslim woman to marry a non-Muslim and the inability of a Muslim to change the religion. In Arab countries, where Muslim law is the only means of drafting national law, it is considered a violation of public order only if it opposes Muslim fundamentalism. Therefore, human rights teaching cannot be expected in this context. At a meeting in Cairo, Egypt, in 1973, the office of the Lawyers' Association of Arabs proposed the establishment of an Arab human rights organisation. The Arab Plan represents a unified Arab base for nurturing the human rights culture in all Arab countries. Plans were drawn up to adopt an Arab strategy to foster a culture of human rights and implement the resolution of the Kingdom of Morocco. An advisory plan on a participatory approach was drawn up for a study workshop held in Rabat, Morocco, from 16 December to 17, 2009, involving Arab experts and several member Arab states. The Department of Human Rights of the United Arab Emirates and the Ministry of Justice in the Kingdom of Morocco jointly established and supported the framework for nurturing human rights culture, drafting national legislation in line with international human rights standards, and formulating Arab policy on human rights. Plans were made to spread and advance the culture of human rights through the following five approaches - human rights education, human rights training, human rights awareness, human rights communication and media and concern for the rights of women, children and persons with disabilities.

HRE in Turkish higher education institutions is nothing new. Although many efforts have been made to develop a series of courses at the secondary level, HRE has a long history in higher education. The Human Rights Documentation Center was established in the early 1960s. In the early 1970s, a political scientist at the University of Ankara, Turkey, began PhD programme in Democracy and Human Rights. In 1974, the Center for Human Rights was established at Ankara University. In the 1980s, the Department of Philosophy created a series of human rights courses for undergraduates and graduates of Hazette University. In 1990, the TBMM Human Rights Commission was the first institution in the national system to protect human rights. Turkey participated in various international agreements such as the Universal Declaration of Human Rights and the European Convention on Human Rights (TBMM, 2011), as defined by the Committee on the Constitution of Turkey.

After a detailed analysis of HRE in Iran, McGraw (2018) concluded that increasing knowledge of human rights is not an indication or guarantee that an individual will be forced to enforce or protect it. Thus, while knowledge is a crucial element, it should be considered equally important for developing awareness and attitudes about the people's fundamental rights. For a teacher education system to be effective, it must be built on the characteristics and motivations that student teachers bring with them when they enter teacher education programmes. Maintaining democratic and human rights ideals during the training period is undoubtedly a challenge. Wiesenbach and Staples (1995) argued that all teachers should focus on involving children in democracy. In line with this goal, Tony-Puerta (1981) claims that teachers should be trained to be sensitive to the human rights issues in the world and their classrooms. They can do this by including appropriate topics in their curriculum and textbooks. As Tony-Puerta (1981) points out, training teachers to teach human rights and international understanding is a priority for UNESCO. Ross and Yeager (1999) also argued that teachers' understanding of democracy and human rights dramatically influences the way children learn about democracy in schools. For example, the results of a study show that teachers' own socialisation affects children's access to the values of democratic citizens. According to de Moulin and Kolstad (1999), teachers must have a firm understanding of democracy and contribute more to teachers' goals in a series of degree programmes at teacher training institutions. The United Nations Conference on Human Rights in Vienna in 1993 recognised the general ignorance of human rights and focused on HRE (Andreopolos & Claude, 1997). It did not take long for the United Nations to reaffirm the importance of human rights, declaring 1995-2004 as the United Nations Decade for Human Rights Education.

Religious stories have a significant impact on the Muslim community. Changing the Behavior of Muslims and correcting their beliefs at Friday Sermon is one of the most effective ways to increase Muslims' knowledge of actions that are encouraged or discouraged by Islam. Using Friday's sermons to convey the message that Islam is against violence, the difference between a husband's right to discipline his wife and avoid domestic violence is clear. Society will condemn domestic violence and protect women. Independence, Saudi Arabia's Labor Code, grants all citizens the right to work. Article 3 states, work is the right of every citizen, and no one else can exercise such a right unless the conditions outlined in this Act are fulfilled. All citizens have an equal right to work. The Labor Code also introduces relevant articles, e.g. Article 149 states that women must work in all areas of their nature, thereby preventing women from working in hazardous locations, and one barrier that women face when applying for a job is obtaining a guardian's permission. Although the Labor Code does not require a guardian's permission for women to work, some private-sector employers request permission from the guardian to allow women to start work, while custodial consent has become a way for men to To maintain a monopoly and control over women. Even if NGOs can play several professional roles, including advocating for

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human rights, providing education and research, and operating human rights activities, NGOs are not independent and are governed by the Ministry of Registration. NGOs are not independent and are not free to work with international organisations, donations from foreign donors are restricted, and freedom of expression is also limited. HRE in Saudi Arabia is the introduction of human rights curricula at school and the interpretation of human rights principles under Islamic law and international conventions. HRE in Saudi Arabia should begin with informal courses on individual rights from primary, secondary, and higher education.

Human Rights and Libraries

Even after adopting the Universal Declaration of Human Rights in 1948, the US Public Library has refrained from describing services using a universal language of human rights. The reasons for this are primarily related to political decisions made outside of librarianship and yet have influenced US librarians to describe and execute services. Thus, while we firmly state that public libraries in the United States provide services that embody human rights, we recognise that connections to the larger global discourse for leading US public librarians have not yet been made clear McCook, and Phenix (2007) have explored the legacy of the human rights philosophy that affects the future of the public library service. For the Public Librarian, the human ability approach, which helps people work in different fields, provides a roadmap for expanding service within the human rights framework. The work of US librarians has evolved to incorporate human rights values and disciplines, rather than the regular use of language that characterises the philosophical and moral goals of human rights and human development. This was pointed out by Samek (2001) on the work of information in the twenty-first century to support the librarian's responsibilities to achieve human rights in the context of the Knowledge Society. The Millennium Conference was held in 2000 to discuss the role of the United Nations in the new millennium. As a counter-culture, the United Nations Millennium Declaration reaffirmed the Universal Declaration of Human Rights and set eight Millennium Development Goals for 2015. Library organisations and progressive groups of library staff and stakeholders have launched socially responsible library initiatives. The American Library Association (ALA) recognises the duty of libraries to protect democracy and promote equal access to information. ALA emphasises diversity, intellectual liberty, public good, and social responsibility as fundamental values of library leadership that should be based on library training and services (American Library Association, 2004). Sharing the same values and advice, the International Federation of Library Associations (IFLA) has created the Corporate Social Responsibility Group and Freedom of Access, sharing the same values and advice.

Freedom of Information Act Federal Advisory Committee (Kags, 2005) focuses on critical issues related to social justice, human rights, literacy, access to information, and promoting a culture where equality reigns worldwide. Regarding the promotion of literacy, culture and equal access to information, former IFLA President Alex Burn argues that censorship and other forms of information restriction fail to see the needs of the people, and many undermine the promotion of empowerment benefits (Bern, 2004, p.146). For example, when the Scottish Information Literacy Project refers to information literacy as a "civil right", stimulants of a more fundamental attitude towards information literacy can be identified. (Scottish Information Literacy Project 2004-2009) This tendency is also evident in some international publications. This has reinforced the idea that information literacy is necessary and a fundamental human right that promotes social inclusion across all races. For example, there is a preface to 'towards an Information Literate Society' that suggests the principles of basic information literacy. Among others,

these principles state that information literacy is "a prerequisite for effective and efficient participation in the information society and a part of the basic human right to lifelong learning" (UNESCO, 2003). The crucial point is to recognise the lifelong right to information learning related to information literacy. Literacy should be an integral part of education for all. It can critically contribute to the achievement of the United Nations Millennium Development Goals and respect the Universal Declaration of Human Rights.

A Framework for HRL

The educational goal of HRL is more prominent and is often associated with broader programmes that promote basic literacy and legal literacy. As it is sometimes called, the idea of community law education has attracted many people who are interested in receiving legal literacy. Educating individuals about their legal rights and responsibilities is often a service that some government and non-governmental organisations have collaborated with law clinics affiliated with lawyers and law students. Legal literacy describes education to promote literacy related to law among students and is sometimes associated with civic education. "Street Law" education programmes are designed to reach out to young people out of school who may or may not attend any educational institutions. However, legal literacy is not enough when people do not have the skills and competencies to deal effectively with the legal system in the country. Accordingly, some legal literacy programmes focus on helping individuals increase their ability to mobilise the law for themselves. For example, when women do not have legal protection for divorce, alimony, etc., they prepare them to face such situations by empowering their legal knowledge. In such cases, literacy training is provided to increase people's ability to understand both the law and their ability to assert their rights. Many people appreciate the value of consciously critical views of the law. For example, scholars recognise a link between the level of legal literacy and economic development. A person that knows more about his legal rights and responsibilities is less likely to resort to violent media to secure a change. It is more likely to mobilise the law with a critical perspective and reform objective. According to the Asian Development Bank (1999), "dissemination of information regarding legal rights can be the starting point for communities to mobilise on a common platform to achieve legal and policy reforms."

The most crucial thing in training children in human rights is to make students understand what human rights are and the contradiction between protecting human rights in today's society and what they have learnt about human rights. Students should be made clear with examples that human rights are often violated, even if they exist. A key question is whether human rights ideals can be taught in a classroom. However, it is vital to teach through a human rights framework for educators' efforts to develop a human rights orientation in the literacy curriculum. From a comparative global perspective, classroom interaction can connect teachers with students and not necessarily teach theoretical aspects of human rights. More and more students and their families, not only the people outside the schools but also the children in schools, are required to practice how human rights are being fought. These training sessions should include understanding and respecting individuals and investigating the rationale behind their exclusion and inhumanity. However, Human rights standards are the ultimate tool, but the ultimate goal of all this work is to prepare people to respect human dignity. This approach is carried out by HRL, where it builds the knowledge and skills that are important for an explicit social change. They relate to five fundamental values: individual freedom, democratic participation, equality of opportunity, economic equity and a sustainable or sustaining environment. This approach HRL is a process of imparting knowledge covering two dimensions: protecting and promoting human dignity. While HRL definitions are standard, it is important to emphasise that appropriate action in response to human rights

issues should emerge due to HRL. Considering all the above conditions, a conceptual framework was developed, as shown in Figure 3 below.

The above framework depicted in Figure 3 symbolises that a person needs to have a good practice of general literacy to achieve a high HRL status. That is, to be able to read, understand and comprehend well. Accordingly, people should be given good skills and knowledge about "what is human rights to the individual and social institution, how are human rights violations committed, what is their status, what are the implications of those violations on society and the individual particularly, and what is the freedom, and social justice that individuals have been vested by the constitution, treaties and other conventions". This knowledge transmission can be done using different activities such as ICT, case simulations, case studies, role-plays, storytelling etc. Then, through this process, "respect for the dignity of others" is instilled in individuals. This is done through developing trust, self-esteem, freedom, equity and justice. These gifts tend to fall into two categories ultimately. That is, "avoid to litigation" or "action on litigation". The whole process is considered a HRL process.

Figure 3. Framework for HRL
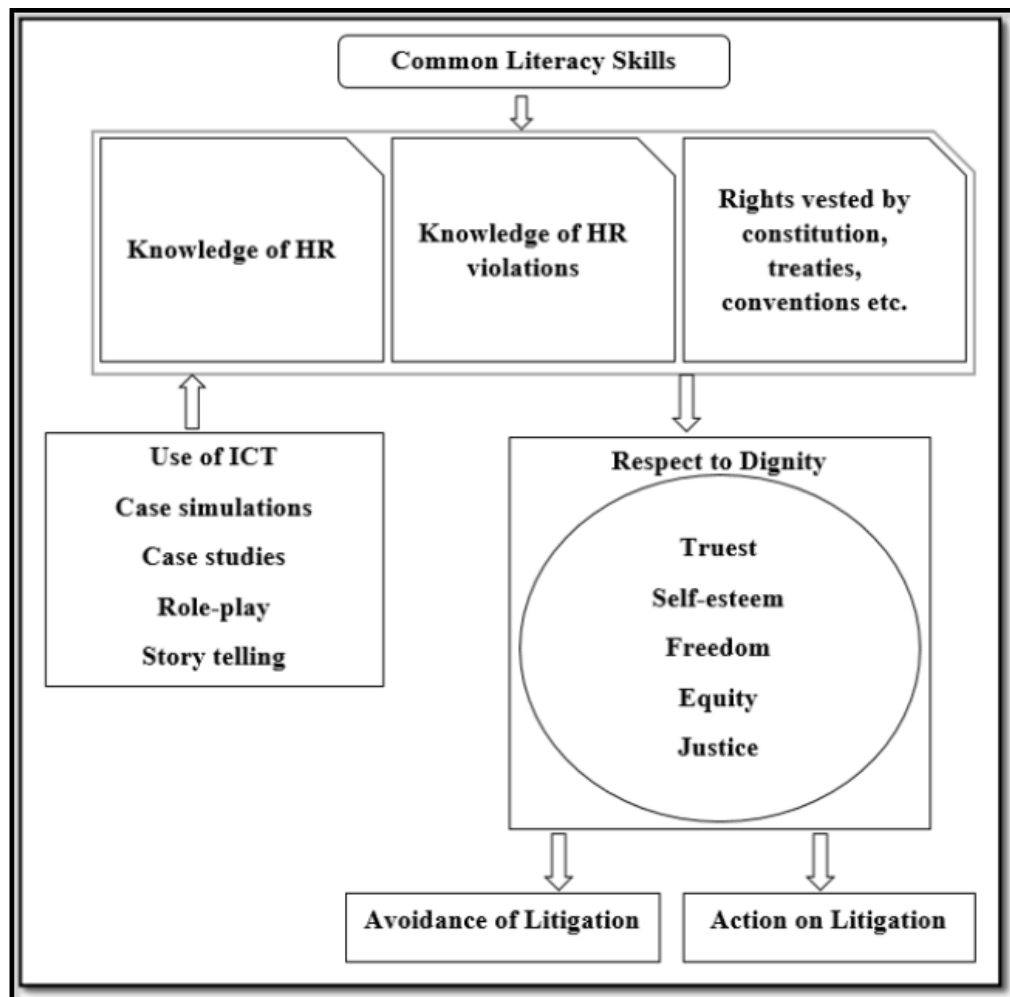
CONCLUSION

Culture reflects an open framework for HRL. It connects cultures and learners to a dialogue process on different cultural and social representations of human rights. HRL seeks to develop an impartial, non-relative normative perspective that is validated within and outside of different countries, understands how all human beings are treated equally, and develop individuals with the ability to oppose human rights abuses. The development of these capabilities will enable the public to move towards a post-universal concept of safeguarding human rights by the country's constitution and international human rights conventions. Considering all conditions, a conceptual framework was developed, as shown in Figure 3.

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Chapter 9
Digital Literacy Training:
Opportunities and Challenges

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ABSTRACT

The new information age technologies influence and shape the social and business life of individuals. Technological changes and their impact on business and society are also seen in cities, countries, and even on a global scale to use resources efficiently and to increase social welfare. As the internet is a fast and convenient communication tool, it is important to make correct decisions by distinguishing functional information while adapting to this change. In the process of digitalization, it is necessary to cooperate with libraries and other memory institutions to interact with digital cultural heritage in obsolete or inaccessible formats. From this point of view, the smart cities are seen as the reflections of digitalization on social life; then the difficulties and opportunities encountered in the process are mentioned in this chapter. In this way, information awareness which can directly affect the level of the ability to use information effectively is expected to increase in the digitalization process.

INTRODUCTION

The current and expected widespread reach of smart devices are possible with individual and institutional attention. The launch or use of a new technology product means that individuals make changes in their old habits and behaviors. With the aim of effective use of resources, increasing social welfare, sustainability, and development, high-tech products are being implemented in daily life, in cities, and all public and private institutions such as e-government and e-commerce (Adam & Alhassan, 2021). The success of this entire process does not depend solely on the advancement of technology. In addition, the individual should understand and adapt to this technology by improving the ability to use it. This new knowledge, which an individual must develop to adapt to the innovations brought by the age, is called digital literacy because its focus is technology. This is the process of awareness and realizing

new knowledge, and it therefore involves not only reading or writing but also acquiring a new pattern or model of behavior. Many factors, such as the acceleration of globalization, changes in urbanization policies, and a productive, active life require such a change in behavior patterns.

In all this process of change, there are great inventions that mark all stages of social development, from people living in communities to agricultural life, industrialization, and the knowledge age. These inventions have radically changed the way of life, urbanization, state structure, and even global trade. Libraries, Archives, and Museums (LAMs), which are called cultural heritage or information providing institutions, record the journey of these developments by visual, written, or other methods. Transferring these nonrenewable or irreplaceable resources to new generations can only be associated with the cooperation of relevant institutions, keeping up with technological advancements and the current age (Trant, 2009). While increasing humanity's knowledge, LAMs have made progress by adding new information from the past and sometimes by offering radical solutions. Digitalization has enabled the developments that humanity has experienced to date to progress much faster in the last century. This development has radically changed social life and removed boundaries in the business world. For this reason, the concept of literacy, which is one of the requirements of the age, is vital in terms of interpreting all these developments correctly and using information effectively. The importance of concepts such as digital literacy, which has many social, economic, and political consequences, has become even more prominent in the information age. Therefore, smart cities, one of the effects of digitalization on human life, is mentioned first, followed by the difficulties of literacy that emerge when pressuring society to change in the information age in this chapter of the book. Lastly, the importance of digital literacy education is emphasized and detailed. Handling the issue from this perspective is also important in terms of drawing attention to the impact of cultural heritage institutions on social structure.

Digitization and Smart Cities

With the transition to settled life, cities have become the focal point of human life. Rapid population growth and demographic changes have begun to manifest themselves in cities. Demographic changes in cities, transportation, rapid and unplanned urbanization, the phenomenon of immigration, education, health, safety, energy, water, and waste management strain the infrastructure of cities and bring new problems with it. For this reason, there is a need for technological innovation where the resources of the city are used more efficiently, information and communication technologies are used effectively and better service is provided to city residents (Batty et al., 2012). In this context, the smart city concept has emerged with the increasing emplacement of technological applications at the center of the search for solutions that form urban systems, facilitate people's lives and increase the quality of life.

The smart city is a result of new solutions offered by information communication technologies for more livable, more sustainable, and more efficient cities. However, these solutions should be implemented in cooperation with all relevant stakeholders and institutions with a human-centered design (HCD) and approach, without violating the confidentiality of personal data and other ethical rules. The smart city is predominantly an Information and Communication Technology (ICT) framework for developing, deploying, and promoting sustainable development practices to address increasing urbanization challenges (Agee, 2021). This ICT framework is an intelligent network of connected objects and machines that transmit data using wireless technology and the cloud. Cloud-based IoT (internet of things) applications ingest, analyze and manage data in real-time to help municipalities, businesses, and citizens make better decisions that improve the quality of life (Gavrilović & Mishra, 2021).

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This is a system of interrelated computing devices, mechanical and digital machines, objects, animals, or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring the human to computer interaction. Cloud-based IoT applications ingest, analyze and manage data in real-time to help municipalities, businesses, and citizens make better decisions that improve the quality of life. Citizens interact with smart city ecosystems in a variety of ways, using cars and homes connected to smartphones and mobile devices. Pairing devices and data with the physical infrastructure of a city and services can lower costs and increase sustainability. With the help of this system, communities can improve energy delivery, facilitate garbage collection, reduce traffic congestion, and even improve air quality (Nayak et al., 2021). Thus, it can be said that it is a digital city where information and communication technologies are combined with traditional infrastructures and coordinated and integrated using new digital technologies.

From the perspective of this chapter of the book, this system means that individuals and institutions can effectively access information service providers such as Libraries, Archives, Museums (LAM), publicly or privately. However, the system can be more complex than it looks, so infrastructure requirements are paramount. Having widespread wireless connectivity, open data, a reliable security system, and flexible monetization plans are essential for the system and its sustainability. At this point, it can be said that digitalization and the smart city process have two main objectives. The first of these goals is sustainability for more efficient use of city resources, and the second is to increase the quality of life to provide better service to city residents (Matos et al., 2017).

According to the city and climate strategy, smart cities developed in four stages. The technology is based on the first smart city model, known as the smart city 1.0. Local governments, municipalities, and architects worked with technology in the smart city 2.0 model. The smart city 3.0 model adopts a citizen-oriented approach. Smart city 4.0 is a new generation smart urbanization methodology where the 2.0 and 3.0 models are applied together (Cohen, 2015). The most important factor in a city's process of being smart is information and access to this information with existing technologies, IoT platforms, and other solutions.

Cities with smart technology are internationally competitive, sustainable, and have quality-enhancing features. A strong smart city needs a strong infrastructure that includes the components for digital infrastructures such as the communication protocol between data, network, and sensors with the smart gateways. The most important point in this process should be the integrated planning and organization of all models, ensuring the highest level of sustainability and efficiency in natural resources, and increasing the quality of urban life by using technology as a result of reducing negative environmental externalities. The qualifications expected to be in smart cities can be listed as follows (Vinod-Kumar& Dahiya, 2017):

- Enables new technology to be equipped to the city, to obtain data, and to use this data.
- Easily obtain data from everything and every object related to the city.
- Provides easy retrieval, processing, and viewability of data.
- Technical infrastructure, easily accessible by technical staff.
- Adequate infrastructure is prepared by the city authorities in sustainable city formation.
- Carries out urban services technologically and can perform automatically with software without human intervention.
- Contributes to informative, participatory, and dynamic communities in the formation of smart citizens.

- City authorities have an important role in preparing the city for the future, having instant dynamic data, and meeting the future needs of the citizens.

One of the main goals of smart cities is to ensure high quality of life by prioritizing sustainable economic local development in the fields of economy, transportation, accessibility, environment, people, life, and governance. All these goals are achieved with strong human resources, social capital, and information communication technologies. All these elements necessary for the success of the process have been summarized by Cohen (2015) as the Smart Cities Wheel (SCW). These elements and their contents can be briefly summarized as follows:

- Smart people: Embrace creativity, inclusive society, 21st-century education.
- Smart economy: Entrepreneurship and innovation, productivity, local and interconnectedness.
- Smart environment: Green buildings, green energy, green urban planning.
- Smart government: Enabling supply and demand-side policy, transparency, and open data, ICT and e-government.
- Smart living: Healthy, safe, culturally vibrant, and happy.
- Smart mobility: Mixed-modal access, cleaned and nonmotorized options, integrated ICT.

A set of indicators assigned to each of the wheel's six components reflects an attempt to create a surrogate to measure each of its subcomponents. Since each component contains three sub-components, it is a smart city model with a total of eighteen sub-components with sixty-two indicators. In this comprehensive process, besides questioning or reading a book, solutions such as the audio library or digital library for the visual or hearing impaired should not be forgotten. In addition to the private sector, public institutions should strive for solutions that embrace all segments of society. In addition to all these, it is also very important that non-governmental organizations, which are expected to combine social and financial goals, raise awareness and make efforts in this direction. Only in this way can information and communication technologies move away from creating a new privileged class and provide equal freedom to all segments of society. Otherwise, minorities such as the disabled or those who have strong knowledge and do not have these opportunities will be excluded from society. Therefore, community-based approaches are very important in accessing information. From this point on, it is useful to mention the importance of access to information and literacy in the next title.

Literacy in the Information Age

Literacy in the information age can be qualified as the ability to acquire and use knowledge, skills, and other resources to facilitate learning. The development of literacy in the information age is the result of providing solutions to current and future questions about literacy learned in the past. For this reason, it is useful to understand the information age and its initial development (Baron, 1999). To interpret the information age, it is necessary to know the concept of knowledge that is handled in terms of different branches of science. A wide variety of concepts that can be defined, characterized, and classified are mixed with concepts of knowledge and data. To understand what a concept is in detail, it is necessary to look at what it is not.

Data are raw facts or impressions that are unprocessed as the main raw material of the information processing process and are represented by various symbols, letters, numbers, and signs. That is, data

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are raw pieces of information that have not been processed. Information is a form of data that are added value through methods such as target routing, classification, calculation, correction, and summarization. It means that knowledge has meaning to create important classifications. Philosophy characterizes knowledge as the harmony between the knowing and the known. That is, it results from a relationship and communication between subject and object (Targowski, 2005). Hence, knowledge creates changes in the cognitive structure of human beings.

Knowledge has social foundations, in other words, knowledge owes its existence to social relations rather than some forms of insider mindset. Sociologically, while knowledge is determined socially, it also creates social order. In this context, knowledge is any form of idea and acquisition accepted by one or more social groups. It is a series of ideas and achievements that people see as real for themselves and others. It is inseparable from knowledge, social interaction, communication, and organizational forms. The interaction between these factors gives information the following features (McCarthy, 2005):

- Since it is a human concept, it requires human beings to know.
- Intelligence and ideas are required because it is a product of thought.
- It is linked to the past and the future but is only produced in the current period.
- Since it is a social concept, society and the social environment have a significant influence on it.
- It circulates among social circles in various ways.
- New ones are produced using only historical information.

All these features and the complex nature of the concept have caused the concept to be classified in many different ways. It is possible to categorize such as explicit knowledge, tacit knowledge, strategic information, individual knowledge, and institutional knowledge. The component of skill, knowledge, and behavior, required to achieve the goals in the workplace, is tried to be provided with knowledge management (Campatelli et al., 2016). Regardless of the type of information, it appears how vital it is for individuals, organizations, and institutions. From the second half of the twentieth century, it has begun to be seen as a production factor, input structure, important competitive element, and the main source of creativity. Seeing knowledge as an economic force has come with the change and development in technology. This technology change has increased the economic importance of information. From this point on, it is useful to touch on technology and literacy issues that provide social transformation in the information society in this title.

Social Transformation in the Information Society

The difference between primitive society and civilized society is the transition to settled life. According to Toffler (1980), the first wave is "Agricultural Society", the second wave is "Industrial Society" and the third wave is "Information Society". Each society has formed a model of the upper society by shaping its phenomenon and the social structure after it according to its characteristics. Societies without economic and political states and strong solidarity with the natural world are called primitive. When the subject is considered in terms of the individual's self-realization and being a virtuous person, it is debated who is primitive and who is advanced. But industry and technology-based classification prefer to call a society that way, as it is based on capitalism. The distinguishing feature of this period is that it is a lifestyle aimed at meeting physiological needs such as nutrition, shelter, and protection by living in tribes. Searching for food, finding suitable caves or tree hollows for shelter, developing some simple

tools to protect from natural events and other creatures are often the result of natural observation with trial-and-error.

Because of the prevalence of nomadic life, there is no established social rule or order. Economic life is generally limited to hunting and gathering. The complexity and overcrowded nature of city life have fueled interest in such ancient civilizations. Therefore, the internal and external limits of the economic structure of primitive society limit the development of its social and intellectual structures. Although there are many constraints in terms of production, change, or technology, there is equal resource sharing and intra-group cooperation. Tillage is an extremely important turning point in human history. Agriculture not only constituted the beginning of settled life but also brought with it the development of vital tools and social life. Land in the agricultural society is the basis of the economy, family structure, and culture. In a fundamentally decentralized economic structure, each community can meet its own needs. Since agriculture is the main energy source of society, technical possibilities are more developed. The transition to agriculture has created great changes and transformations in people's lifestyles compared to primitive societies. Material foundations of social hierarchy and the formation of social classes are some of the leading results of this change and transformation. The emergence of private property and social hierarchy has broken equality in society (Masuda, 1981). This change has replaced the feelings, thoughts, and attitudes of nature with social norms. In these societies, knowledge has a social dimension to practical wisdom. It takes great effort for a craftsman or master to transfer his knowledge to the journeyman or apprentice. Because apprentices can learn visually only and they have to spend half their lives to become masters.

The centuries-old traditional value system of the agricultural society and relatively stable world views have changed along with the dynamics of the industrial society. Technological, economic, and political developments begin to shape the new age. Political developments and revolutions, the inventions of the steam engine and its use as an energy source, and the desire of nations to create their wealth were written in history in this period. Industrial society, which was the material basis of socio-economic development with the Industrial Revolution, was established on social, political, and intellectual foundations with the French Revolution. Since iron and coal are the main energy sources or raw materials and are processed in factories, this process is also called the mechanization age. The emergence of large factories and widespread use of machinery makes this age different from others (Inglehart, 1990).

The replacement of natural energy sources such as human, wind, water, and animals by machines activated by steam power or the replacement of machine tools and workshops equipped with craft and simple tools by factory production with techniques and machines created by new inventions has led to great and profound social changes. Living and working conditions were rearranged, cities grew rapidly, and these new living spaces were overflowing with people who came looking for work. When profitability is the only goal, working conditions that damage human dignity and exceed manpower prevail in this great economic and social existence. Thus, a new working class was born, with limited freedom and not seeing all the tangible results of work. The change of quantum mechanics and scientific paradigms in the first quarter of the 20th century revolutionized the socio-economic, cultural, and demographic structures of society. This revolution in microelectronics covered a wide spectrum from computers to communications, from robots to satellites (Webster et al., 2004). This situation changed the understanding of the production of matter and created the understanding of information production. Although this new age is also referred to as a post-industrial society, it is often known as the information society.

According to the long-wave theory, four long waves have occurred over about fifty years from the industrial revolution to the present. These are the early mechanization, steam power or railways, electric

and heavy industry, mass production periods. The current period is referred to as the fifth wave or information society. Information and ICT, representing this period, are the main engines of the transition to the information society. The fact that information and information technologies can be used in almost every field by covering all components of human life such as industry, agriculture, service, education, health, and communication accelerates the change. The information society has brought a supranational understanding in technological, social, political, economic, and cultural fields (Ayres, 1990). This understanding necessitated social, political, economic, and cultural integration between countries. Accordingly, new life dynamics change radically or gradually with theory and practice. In this process, the widespread use of computers and telecommunication tools is very important to facilitate communication at the national and international level and to provide easy access to libraries, data archives, and other information resources under the control of private or public institutions. From this point on, it is useful to mention the interaction of technology and literacy in the next title.

Integrating Technology and Literacy

To understand the development and interaction of technology and literacy, it is necessary to look at how concepts are evaluated by societies or people. Because the way these concepts are handled based on the awareness process has been different in every period. These differences occur under the influence of the technology of that century, as well as general acceptances, norms, and rules. In this respect, the process of knowledge and awareness gaining importance can be handled in five stages (Bell, 1995). The first stage is about the economy, which shows that there is a transition from the production of goods to the service sector and that there is a transition from a structure that requires less information to a structure or sector based on more information. The second stage is that professional and technical employees gain importance and become superior as a result of the depreciation of handicrafts. The next stage is that the post-industrial society puts theoretical knowledge at the center of providing the necessary innovations for society and making political decisions. The fourth stage is the evaluation and development of application results by further advancing technological developments as a new area of interest. At the most current point, the final stage involves decision-making and the creation of new intellectual technology.

With the development of transistor and chip technologies, computers have become smaller, cheaper, and equally powerful (Bauer et al., 2021). Pioneered by rapidly evolving and cheaper semiconductor technologies, computers continue to enter homes rather than being expensive calculators used only by certain research labs. With the emergence of the network structures, interest in computers shifted to computer networks intertwined with telecommunications. As a result of the use of computers by telecommunications means, the distance between information and information processing and transmission is lost. This revolution in information and communication technologies creates social and economic consequences on a global scale by removing the limitations between place and time.

This independent and open access network structure, which develops day by day, is becoming more determinant for the future of society. The Internet's impact on the community is accelerated by the free exchange of digital data between different groups through email, file, data transfer within the global network of websites. Thus, new situations arise as a result of these triggers such as simplifying communication and business processes, reducing expenses, ensuring teamwork, providing collective creativity, providing global communication, providing unlimited access to information resources (Afshan et al., 2021). In this context, it would be appropriate to say that the information, communication, and internet plane are the main triggers of social change and transformation.

This new civilization created by information and communication technologies is different from the others in every aspect. The reason for this difference is that besides technology inheriting what people do, it can also do things people cannot do. While this situation is increasingly virtualizing the experiences, it rapidly transforms the existing social and economic structures. According to future predictions of the situation, information networks, data banks, and institutions in the service sector, which form the basic organization of knowledge production, will replace the factory as a social icon. These institutions that provide information will play the role of infrastructure. In this case, financial capital will leave its place to knowledge capital, also known as intellectual or human capital, as a result of the change and transformation in the economic structure (Masuda, 1981). Since ICT is globalized, it constitutes the basic axis of the information society. Free flow of information and consumer-oriented communication environment are among the results of the disappearance of the concept of time and place through networks. There is an important point that draws attention in this process. While the limited social structure in the information society transforms into a multi-centered functional society, the voluntary communities become the subject of the socio-economic process.

There are various types of literacy concerning awareness of the ICT and other developments and consequences of them. The concept of digital citizenship is about this process as much as literacy concepts. literacy generally emphasizes the awareness process, the development of skills, and its use in this area. Therefore, it can be applied to all areas and can be encountered in a wide variety of ways, such as science literacy, environmental literacy, financial literacy, mathematical literacy, health literacy, media literacy, visual literacy, universal science literacy, statistical literacy, economic literacy. Before mentioning digital literacy among these, it is worth highlighting the issue of social justice, which shows why literacy is important. In the information age, how the information obtained through the information service providers such as the library, museum, and archive is a critical issue.

Social Justice Challenge

Technology, which defines the necessary tools for production and the social relations of people using these tools, is decisive in production and human relations. People change their mode of production to provide new productive forces. Hence, they change all their social relationships to change their production and livelihoods. Every society has created classes on the axis of its economic formation, the means of production. The feudal lords of agrarian society created the industrial society bourgeois class. However, at this point, the change occurring in society, economy, and means of production is beyond matter. In other words, the phenomenon of change is mental rather than material (Mowlana, 1984).

With the invention of the steam engine, the industrial revolution took place, and then the working class emerged, while a new class with new skills emerged with the increase of knowledge-based jobs. This new class, which emerged after the industrial revolution, is classified as technical intellectuals and political intellectuals, as it is known by names such as the golden or knowledge manager and the knowledge worker. In a structure where those who produce and hold information are at the forefront, the elements of material power lose their relative importance. The rapid transfer and easy access of information in all directions with communication technologies create opportunities for individuals in society to develop themselves and reveal their potential. As in every period, the structure based on knowledge or quality creates its dilemmas in this new period (Gouldner, 1980).

It can be said that knowledge as a commodity begins with entrepreneurs recruiting labor they do not have and incorporating it into the production factor. The capitalist economic system involves private

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ownership of the means of production and the operation of these means by laborers who do not own them. The production system based on private enterprise and market freedom is essentially an economic system with developed technical capital and the domination of financial capital. The efficiency or development environment is based on progress, not on the concept of social justice (Walton & Nayak, 2021). The global gap has further clarified the distinction between developed and undeveloped countries, where there is an increasing gap between the rich and the poor. Reshaping the existing structure, where global and social gaps are very high in the capitalist system, will undoubtedly create new individual, social, and even global problems.

Another important problem in the new world order is the problem of accessing information. This problem is the deepening of the inequality between the knowledge-rich and the knowledge-poor (Domingos, 2007). The control of information resources by a minority power creates effects such as the cultural alienation of certain or ethnic groups within a national or world society and the technological colonization of life. Although applications restricted by governments are known today, online networks and instant monitoring mechanisms are also used. In other words, although technology is offered unlimited access to the whole world, freedom is more limited than digital imaging or digital fingerprinting.

The fact that knowledge has become a rising value as a means of creating wealth has created serious problems in access to information between developed and developing or undeveloped countries. The sale of scientific publications or resources as commodities is made through electronic databases. Thus, selling information creates problems or limitations in access to information in developing countries, while helping developed countries move forward (Mansell & When, 1998). Since there is a close relationship between scientific knowledge and technology in the information society, the main issue is production efficiency. The technology, shaped by the adaptation of organized knowledge to the working environment, has developed in parallel with the continuous production of scientific knowledge. This development has enabled technology to join the economic, social, political, and cultural fields that constitute social dynamics. Thus, the development of civilization is indexed to the development of technology.

Conversely, personal information that should be kept confidential for security reasons is collected online by global companies and made available to advertising companies and governments in a consensual or no way. For this reason, the individual is exposed to dozens of advertisements, informative messages, or e-mails every day, whether they want to or not. This can be seen as an attack on personal rights and the psychological well-being of the individual, not freedom. The same company repeatedly calls to sell the product you do not need means that you do not remove yourself from the customer list even though you have requested it. As with any subject, a balance must be maintained in the development of technology and its impact on individuals. Otherwise, businesses will continue to press heavily for profit in an aggressively competitive environment. This dilemma allows countries without internet access, such as Africa, to provide internet via drones and set such goals because they do not have the infrastructure. On the other hand, deaths continue due to primitive diseases or thirst. While global firms see underdeveloped countries as a big market, they also find new solutions to reach them (Gagliardone, 2019). Solutions such as electronic money transfer, logistics, and new generation internet infrastructure are part of these goals.

This inequality, known as the digital gap or divide, is present in all stages of knowledge management (KM). Considering that information technology are the basic dynamics of the global economic and social transformation in recent years, the level of use of these technologies is considered an important indicator in terms of the welfare level of societies and their future development potential. So the stages of KM as the readiness to information, accessing to information, using of information, value creation from

knowledge become more important at every level. If digital awareness or literacy is missing, the filtering capability is not used (Vong et al., 2017). Therefore, fake or untrue and useful functional information are indistinguishable, and cannot be included in the value creation or efficiency process. In this context, the abilities of the individuals to filter information will increase the effectiveness at the action-goal level as well as make it possible for the individuals to realize themselves.

Promoting Digital Literacy

Lifelong learning is continuous, voluntary, and self-motivated information research for personal or professional reasons. Thus, it not only increases social inclusion, active citizenship, and personal development, but also self-sustainability, competitiveness, and employability. Education or training is the only way to develop various levels of knowledge, skills, and attitudes and transfer this to behavior about new concepts brought about by age (Malmberg, 2021). The solution to the problems mentioned in the previous heading depends on individuals' self-development and digital literacy. Only in this way can the difference between correct information and misleading information be noticed and used functionally. Otherwise, scientific progress and productivity cannot be mentioned. Information service providers as LAMs have a very important role in this process, as this issue, which is both economic and social, deeply concerns society. Because the provision of justice of access and the healthy development of the society are possible by accessing and using information.

Digital literacy, a field that combines information skills with ICT, is not just an awareness process. It is also a concept that includes the ability of individuals to choose and use software tools, access information through these tools, and critically examine and evaluate the information they have accessed. Digital literacy, which requires cognitive, behavioral, and affective competencies, is one of the requirements of being a digitalized citizen of the digitalized world, and the sooner it is acquired, the better. Since digital literacy is a broad concept, it is directly related to some subfields such as visual literacy, technology literacy, computer literacy, information literacy, communication literacy, and media literacy. It seems that information and communication technology literacy is defined as digital literacy. However, it is the most widely accepted and widely used three sub-dimensional characterizations of digital literacy. It is necessary to address and develop every aspect to promote digital literacy. The following sub-dimensions and contents should also be taken into account in the training on this subject (Ng, 2012):

- Cognitive Dimension: The ability of individuals to think critically while trying to access, evaluate and create information digitally is the cognitive dimension of digital literacy.
- Technical Dimension: Knowledge and skills gained in technical or operational terms to learn or use information and communication technologies are included in this dimension.
- Social or Emotional Dimension: The awareness of using digital tools for socialization, communication, or educational purposes, and the ability to provide sustainable communication are related to this dimension.

To decide which software tool to choose for the relevant purpose, to know both legal and moral issues during the production of information, visual, spatial, or auditory. Understanding the differences between literacy domains is also considered under the first dimension. The second dimension covers the effective installation and use of tools or web-based resources in general. The last dimension includes the concepts of sustainable communication and socialization. As it can be understood from dimensions,

dealing with the subject in terms of all sub-dimensions of the attitude provides detailed and comprehensive content. These qualities show that digitalization is very effective in human life and the lifestyles of societies. With a focus on the functional and critical use of the digital world, even those born with these skills and those learned later are distinguished. Those who have to develop these skills in adulthood are called digital immigrants, and those born in this technology are called digital natives (Kincl & Štrach, 2021). These classifications are an indication that the new age based on knowledge has effects even on the characterization of individuals.

All these activities and skills aimed at transferring, sharing, and disseminating information that appeals to the feelings, thoughts, and behaviors of the individual make it a necessity to reach accurate and reliable information. Information obtained by traditional methods is still not transferred to electronic media or digital databases. There are many different visual and textual sources that are the source of cultural heritage. Delivering these resources to those in need is not an effort that an institution can do on its own. For this reason, both the protection of cultural heritage and its transfer to future generations depend on the strong cooperation and sustainability of many institutions (Trant, 2009). There are centuries of research, observation, and common sense accumulated in all fields of science such as art, medicine, education, and archeology. Therefore, it must go beyond its traditional roles and adapt to the online world, with collaborations between these three types of cultural heritage institutions as the museum, archive, and library communities (Gould & Gomez, 2010). Professional practices should be developed in the context provided by digital heritage and digital curating and sensitized to support common goals. As the memory institution, a vision of an integrated cultural network must be provided for the social role of libraries, archives, and museums, based on the desire for all information to be accessible to everyone everywhere.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

Communication possibilities have changed as developments in computers and technology have revealed the concept of electronic text as a digitized tool. Unlike traditional text, sounds, images, and data in electronic texts transcend text boundaries and at the same time turn into verbal, visual, and auditory qualities. These versatile interactive tools enable online interaction without place and time constraints. Some institutions in the social structure have reshaped themselves through electronic texts and switched to applications known as new social enterprises such as e-government, e-commerce, and e-society (Adam & Alhassan, 2021). Because in the information age, competition is no longer dependent on financial or physical resources, but on information, technology and speed.

The development of computer and information technology has increased the use of computer-based data sources and tools such as hypertext, hypermedia, and multimedia have been actively used especially in education and business life. In current society, adapting to technological change, using technology consciously, and being active at the point of production, having technology and computer knowledge also requires digital literacy or skills. Beyond reading or writing, digital literacy is a skill. This skill primarily involves recognizing the need for and accessing information and potential sources of it. Then comes the evaluation and practical application of the knowledge. It is the ultimate in using existing knowledge by integrating it into other areas for results such as problem-solving, creativity, or productivity. In addition to awareness, the acquisition of these cognitive and behavioral skills becomes a necessity rather than an optional choice (Ng, 2012). In addition to global competition, some of the developments that encourage

this situation are the economy-based ICT competition, the rapid rise of the internet in daily life as well as in business life, public and private sector development policies.

As in all industries, all ongoing developments place new roles on Library Archives and Museums, known as memory institutions or information service providers. The cooperation of these institutions, which contain irreversible cultural heritage, is critical in terms of social goals. While discussing the educational needs of these institutions, adaptation and change, growth, facing challenges with enthusiasm, continuing to learn, mastering new technology, working with a team and creative problem-solving skills emerge. Going beyond the existing roles in professional life and acting following the requirements of the information age requires new skills. If national or global goals include information sharing and access, it creates an infrastructure that facilitates inter-agency cooperation (Trant, 2009). From this point on, it can be said that professionals and politicians support taking steps towards the development of such infrastructures. Today's small steps are very important for future generations to be individuals with conscious and high access to correct information. The best advice for researchers is to shed light on the future by researching public and private organizations that are critical to decision-making.

In this chapter of the book, which mentioned smart cities, which is one of the important areas where digitalization has shown its effect, it is aimed to raise awareness by emphasizing the issue of digital literacy that affects all segments of society. The technology-centric transformation of the information age imposes new responsibilities not only on institutions but also on the individual. For this reason, the needs of individuals who know the research and can classify and use the information they obtain require their personal development. Literacy mobilization has now turned into a digital literacy campaign and has become one of the most effective tools of global competition. For this reason, all private, public or social institutions need to adapt to the information age by improving themselves with the requirements of ICT. The people, institutions, cities, and countries that can do this will be among the ones that shape the future.

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KEY TERMS AND DEFINITIONS

Digital Natives: They are the new generation born into the digital age, while digital immigrants are those who learn to use computers at some stage during their adult life.

HCD: Human-centered design is an approach to problem-solving, commonly used in design and management frameworks that develops solutions to problems by involving the human perspective in all steps of the problem-solving process.

ICT: Information and communication technology is a term that gathers the terms of information technologies and communication technologies under one roof and emphasizes the relationship between these technologies.

IoT: The internet of things is a system of the capability to transfer data over a network without requiring human-computer interaction, provided by interrelated computing devices, mechanical and digital machines, objects, animals or humans, and unique identifiers.

KM: Knowledge management is the process of creating, sharing, using, and managing the knowledge and information of an organization.

LAM: Libraries, archives, museums are considered as the information service providers and memory institutions.

SCW: Smart cities wheel is a smart city model with a total of eighteen sub-components since each component contains three sub-components.

UID: A unique identifier is a numeric or alphanumeric string that is associated with a single entity within a given system.

Section 3

LAM in the Community: Theory Relating to Facets

Chapter 10
The Importance of Rural Library Services Based on Social Inclusion in Indonesia

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ABSTRACT

Libraries provide services for anyone, regardless of their social or economic interests, so that they have a non-discriminatory nature in providing good services in the library. Rural library into the container provision of reading materials as a source of education and community empowerment. Facing COVID-19 is not easy. It becomes a challenge for community to stay active and productive. Social inclusion has been introduced in many public libraries in Indonesia. Through this social inclusion, the library wants to further improve the welfare of community, especially in the rural areas. This chapter discusses the conceptualization of information for development which accommodates the concepts of advancement of literacy and development information for the community. The purpose of this service is to be able to provide services to rural communities so that it is easier to access information.

INTRODUCTION

Public libraries are an important entity in local communities. Not only Urban public libraries but also rural public libraries today are helping shape the future of the cities. The rural libraries or "Taman Baca Masyarakat" offered the development of various cultural resources for the community and have become a type of socio-cultural institution. They provide the capital by which people can empower themselves and their communities. Social inclusion is an effort to place individual dignity and independence as the main capital to achieve ideal quality of life. Through social inclusion, it encourages all elements of society to receive equal treatment and get the same opportunities. 2020 is the toughest year for all

people around the world, covid-19 has been hard on all of us, and getting used to a new way of living does come with its challenges. The covid-19 pandemic has an impact on the social and economic side of the community. Restrictions on doing outside activities have made many people lose their jobs and the economy is unstable. Through social inclusion, it is not only about how the library gives the services but it can provide training programs and socialization to the community, also ensures that the training program provided is on the right target and beneficial for the community. On the other hand, the library materials provided in the library must also be in accordance with the characteristics of its community, as well as the role of librarians and literacy activists who support this program of activities in society.

The purpose of this research is to see how effective the social inclusion program is through libraries, especially in rural areas in Magetan-Indonesia. How social inclusion in Indonesia can provide skills and knowledge to the community through libraries so that they can improve their economic and social conditions. The librarian has engaged directly with the communities they served. They held various events for the community, such as handicraft making, and literacy for kids. They believe that the social inclusion activities will be beneficial for the library. Rural areas are taken as research sites because sometimes rural areas are far from the reach of the central government, on the other hand, the library already exists in the rural areas joining in the empowerment of the family welfare community (PKK). This study seeks to explore how Maospati rural public libraries improve the community's socio-economy by holding various literacy activities by way of inviting them to come to the library.

BACKGROUND

Indonesia is located off the coast of mainland Southeast Asia in the Indian and Pacific oceans and Indonesia is known as an archipelagic country. There are 17,504 islands that are included in the territory of Indonesia. Meanwhile, there are 5 of them are the largest islands, namely New Guinea (generally known as Papua), Borneo (Kalimantan), Sumatera, Sulawesi, and Java.

Social inclusion is one of the government's efforts to improve public welfare and raise their standard of living again. Through the closest association in the community, which is rural or sub-district. The rural library is reactivated with creativity and innovative activities that can be participated by all people. Libraries as institutions that provide information services also have a function as a place to foster literacy which is expected to be able to foster creative and innovative ideas in society to reduce the social and economic impacts of the Covid-19 pandemic in particular and reduce poverty in general.

The COVID-19 pandemic took the world by surprise. Globally, everything has stopped. Projects have been delayed, workplaces closed and schools are now closed. The world seems to have ground to a halt because of the pandemic. Social inclusion has begun to be discussed since pandemic covid-19 by the community.

Literacy can be defined as the ability to find information and utilize and evaluate information effectively (Rachmawati, 2018). This information can be obtained through library materials available in the library, or through training by facilitators organized by the library. Social inclusion through libraries for the community is a new approach that is expected to be able to foster community social-economic development and broaden people's insights, especially in rural communities that are far from access to information.

The library also plays a role as a gateway to knowledge and culture. The resources and services they offer aim to create opportunities for learning, literacy, education, and help to shape ideas and perspec-

tives for creative and innovative communities (Ben White, 2012). Through the integration of human qualities and literacy, it is humans who determine the driving force of the economy in society. Apart from the impact of the Covid-19 pandemic on the community, the condition of Indonesia's national development is still low. So, it is necessary to have a new strategy to maintain a better economy society, namely through a community that is knowledgeable and process of education. A knowledgeable society will not only improve the socio-economy within the community itself but can also deliver Indonesia to become a great country (Bondar, 2019).

LIBRARIES AND INCLUSION

One of the functions of the library is to improve literacy culture, in accordance with the one of vision President of Republic, Indonesia revealed in a presidential directive. The presidential directive was later one of seven Indonesia's development agenda, that is "increasing literacy culture, innovation, and creativity" (Webinar National Library, 2021). This program makes the library a community facilitator.

This community empowerment program is known as social inclusion and the library as the facilitator. The goal is community empowerment in literacy, innovation, and creativity to improve public welfare. Librarians or literacy activists together with the government encourage an insightful community with literacy, innovative, and creative program in the library.

Social inclusion began to be discussed in 1994 by The International Federation of Library Associations and Institutions (IFLA) which said that public library services must include access regardless of age, gender, religion, nationality, language, and social status (IFLA, 1994). And it was re-confirmed by (Fourie, 2007)"They should really address all primary needs that can be linked to information needs and access to information. The enormity of the problem requires us to move way beyond our expertise, abilities, and resource".

In 2018 the concept of social inclusion has also written by IFLA in the Sustainability Development Goals (SDGs) (IFLA, 2018). This concept broadly seeks to provide services in libraries to provide a variety of data, information, and knowledge that can be used for anyone regardless of the user's social strata. All services and facilities in the library can be used potentially by users. It means that Public libraries have an important role in involving all excluded groups into society.

In Indonesia, social inclusion began working professionally in cooperation with Coca-Cola Foundation named Perpustakaan Seru (Perpuseru). Perpuseru was a program under Bill and Melinda Gates Foundation to help the community to develop skills through public libraries (Priyanto and Cahyaningtyas, 2021). Perpuseru was managed by Coca-Cola Foundation in Indonesia from 2011-2018, this program aims to make regional libraries a learning center based on information technology (IT) (Safira, 2015). Hundreds of libraries have been reached by having libraries throughout Indonesia. Perpuseru program also aiming of reducing information poverty by transforming public libraries and rural libraries to the information center learning that answers community needs through increased access towards technology and literacy. In accordance with the purpose of the establishment of this program, Perpuseru uses technology as a medium to attract a wider audience to get more information about Perpuseru (Adriyana, 2018).

Which continued completely by the National Library beginning in 2019, continuing the social inclusion-based library transformation program. According to the National Library (2017), social inclusion is an effort to place individual dignity and independence as the main capital to achieve ideal quality of life. The purpose of this social inclusion-based library service is to take a library service approach that

is committed to improving the quality of life and welfare of the community. Along with the Covid-19 pandemic in Indonesia in March 2020, have an impact on the economy of the community, the library social inclusion program through librarians as the driving force is one way to help people improve their standard of living.

Libraries doing social inclusion facilitate the community to develop the potency of the community and empower them by offering creative activities (Priyanto and Cahyaningtyas, 2021). Maospati rural library was one of the rural libraries that tries to get the library closer to the community. The librarian wanted to spread the knowledge through this literacy program during the pandemic. The librarians want the community to be able to develop skills and knowledge.

First, they invited the women community to do reuse and recycle the plastic waste that is processed by the "Bank Sampah" (bank to collect plastic material) sampah means garbage, the community only collect the plastic garbage. Bank sampah is one of the media driving the economy at the lowest level in society.

This plastic was processed into crafts by the community, and they make various crafts such as vases, frames, lanterns, bags. It is the responsibility of librarians as facilitators, to train, educate, and assist the community well. To make their products visible, they also promote their products and sell them.

The second is providing a study place and wi-fi access for students. During the pandemic, school activities have been suspended, especially for kindergarten and elementary school students. Online classes are the only option in terms of preventing the spread of Covid 19. Many students feel that they are not free to study remotely.

Despite the lack of a nationwide lockdown, schools remain closed, which means that students who have internet connections will have a difficult time maintaining their online learning. Some of them do not have an internet connection at home. Some of them have no internet connection at home. The library providing space and wi-fi and resources for students to study. The librarians are also responsible for guiding how to access information through digital resources, especially for children. During the pandemic, people's enthusiasm for visiting the library is quite high. Children must be under the direct supervision of a parent or other adult while in the library. Meanwhile, when the children visit the library, and parents can take part in the training like making handicrafts held by the librarian.

It can be concluded that social inclusion is an activity carried out to monitor society through the library to aim of improving the socio-economic quality of society. The activity referred to by literacy is for a creative and innovative society. Creating a prosperous society can be done by the library through the transformation of library services based on social inclusion.

The appropriate program without support from the government is not easy to do, support from both local and national governments will make it easier for libraries to carry out this program for the society. Commitment to do the program should be clear, it is also stated by the head of the national library at the opening of the social inclusion-based library transformation event, 2019 "there are 344 libraries that have felt the impact of the development of a new paradigm, and the priority of human development is the main goal of the president". It means that libraries have a lot in nation-building character, apart from the socio-economic aspects.

Through social inclusion programs, the government has many roles in developing a better character of society, able to compete and be creative (Cahyaningtyas and Priyanto, 2021). The aim is to improve information literacy based on information communication technology, improve the quality of life and welfare of the community, strengthen the role and function of the library so that it is not only a place for storing and borrowing books but more as a means of lifelong learning and community empowerment. A foster, the government should touch the lowest level of society to deliver the message. So that, not only

public libraries are being developed, but also rural libraries. The rural library is the closest access to the society, who cannot access the information from home. Maospati rural library, inviting the society to have a literacy culture by supporting society activities to resolve socio-economic issues.

Problem Statement

The purpose of this social inclusion-based library is to help individuals and communities to develop community welfare. One of the functions of libraries as community service is the existence of new activities in the community that have a positive impact on socio-economic development. However, are these activities appropriate and effective? Has society been helped in life or only includes certain parts?

The Urgency of Social Inclusion

As a librarian, we must know the urgency of social inclusion involving libraries as a rural program. Not all rural libraries have librarians, however social inclusion programs will be more meaningful with librarians or social activists. Not many librarians work in rural libraries or Taman Baca Masyarakat due to low salaries funds for librarians, most of the rural libraries are organized by the local authority or who is appointed to be in charge. According to the statistical data of the National Library of Indonesia librarians (2021), the number of civil servant librarians in East Java is 137 people, consisting of school, college, special, general, or city/district librarians. Most of the rural libraries are managed by activists or librarians who do not work regularly, so this causes the unpopularity of working in the rural library compared to other libraries, even though the rural library is an important role in community lives directly. The most important thing from social inclusion is to raise the standard of living of the community from socio-economic issues due to the current pandemic covid-19.

Maospati is the smallest district in East Java with 60% population are immigrants with a total of 47172 population (Civil registration/Dispenduk, 2020). The majority of housewives do not work, solely on their husband's income and have an average of 3 children. This pandemic is certainly a blow to the economy for housewives who have to manage family finances, so that socio-economic issues become an important concern after health in society. In addition to social assistance to help people continue their lives normally, a new social order is needed to be able to start a new normal era after the pandemic has passed.

The government, through the national library, has started to move programs of social inclusion activities with the library, especially in rural areas with socio-economic issues. Social inclusion programs through the society in facing the new normal, so that people are better prepared and minimize socio-economic issues.

Indonesia is widely considered capable of surviving the pandemic crisis because has a strategic demographic that can be used by all people. The opportunities for Indonesia are because it has a supportive demographic for economic development and the sufficiency of large numbers of human resources. Indonesian have 64% of the population are of productive age, so it is possible that this socio-economic issue will be passed properly. It is possible that the quality of humans will be much better if they are able to carry out a literacy culture so that they have good competitiveness.

It has been discussed about the literacy culture make Indonesian society better, it has a broad meaning. This literacy culture can be studied and familiarized as early as possible with small things, one of them is the library. Why the library? Because the library is the most appropriate place to accommodate the society and literate together. This was also conveyed by Ningrum (2019) that libraries are the most

appropriate means of carrying out literacy and getting closer to the community. In accordance with the government program through the national library to carry out social inclusion by providing a literacy culture to the society, the rural or sub-district libraries are the most suitable to carry out this program, because they are close to the most complex communities and are expected to be able to match the target.

Social inclusion through libraries aims to foster a culture of literacy so that people affected by this pandemic in particular are able to adapt to the new normal and be able to overcome socio-economic problems in the smallest environment, namely the family. The government's thrust in providing space for the library cannot be separated from the positive impact of activities in the library which has also increased. The aim is to develop programs related to social values in society. In short, the condition Indonesian library achievements of the last five years of development growth have increased, although some of the uses of libraries have not been maximized. The national library's five-year strategic plan has been prepared and contains literacy culture as a dimension of the 2020-2024 development index. This shows that literacy is able to bring people more knowledge and character (National Library of Indonesia, 2020)

Maospati District is a sub-district in Magetan Regency, East Java Province, Indonesia. The geographical condition of Maospati Subdistrict is mostly dominated by lowlands and hills in the northwest with an altitude between 74 and 185 meters above sea level. Maospati District is a densely populated sub-district in Magetan Regency with a population of 46,763 people and an area of 25.26 km2 (Wikipedia, 2021).

It shows, Figure 1 the percentage of cultural literacy is above 53.13 and the 20th. This is also the concern of the provincial government to support literacy activities, both "Taman Baca Masyarakat" (rural library) and public library. Many program activities have been made to support including library competitions, reading ambassadors, book assistance, mobile libraries, and social inclusion-based library transformation. Social inclusion itself is a new program designed to reach the community more comprehensively, especially in rural society.

Currently, social inclusion program is being developed to reactivate the rural library and accommodate the needs of the community, especially during the Covid-19 pandemic. Indonesia has 33,929 Villages or Sub-districts libraries, including Maospati rural library or "Taman Baca Masyarakat", the uniqueness of the Maospati rural library is the author of this study because of the potential of communities which active and creative, although it is a small village and strategically located bordering the cities and provinces, and community diversity. Maospati rural library has been established since 2014, but the activities have been carried out since the 2020 pandemic.

Broadly speaking, the social inclusion program carried out in the Maospati rural library aims to help people adapt to the new normal and encourage people to be independent and succeed in surviving the social and economic crisis. Activities that are carried out in stages, starting with activities whose main target is housewives. The activity continues with the target of pre-school children and adolescents who are currently studying at home.

Preparing, Exploring, and Services

Preparing

The preparation is divided into two stages, namely "how to begin" and "how if failure". Routine activities carried out by the government coordinate with librarians from public libraries with rural library librarians and volunteers to start implementing this social inclusion program.

1. How to Began

The public library supervision the rural library which is deemed capable of running a social inclusion program. After the monitoring is complete, librarians are trained before they are involved in the community and carry out social inclusion programs in the community. Librarians also play a role in designing the activity programs and socialize them with the community.

This program was fully funded by the government. The government sets an amount budget for ongoing activities and this social inclusion program can help to turn the community's economy. This program provided to the society which the activities are for the family environment that is able to increase the income.

Due to the pandemic, all the educational institutions in the world are closed including Indonesia. The learning system switched to online learning. However, this situation is not comfortable for students and parents as well. As mentioned above, unfortunately, some students do not have internet access to online classes because of expensive subscription fees. Furthermore, purchasing data plans for learning could also incur a lot of expenses for families who face financial constraints. Through this program the Taman Baca Masyarakat providing reading rooms, library services, and wi-fi services for elementary school until high school students. It is very helpful to them they can learn and attending online classes.

2. How If Failure?

An activity is impossible if there are obstacles when it is run, some of the obstacles that may be faced when this social inclusion program is run are (Fourie, 2007):

a. The policy of the government of the day and public pressure (or lack thereof) to address social exclusion.
b. Inadequate funding and infrastructures.
c. Inadequate support for sustainability.
d. Inadequate support and commitment from advocacy groups.
e. Governments' perception on the role libraries can play.
f. Unwillingness of "excluded" groups to participate in efforts to ensure social inclusion from a library perspective (e.g., not willing to accept that access to information may make difference in their lives).
g. Lack of relevant empirical research data on primary needs (e.g. housing, employment), information needs, and information behavior that can be used in efforts to address social exclusion.

Barriers are signals when the program of activities is implemented. Librarians need to know how to deal with obstacles and how to overcome them so that failure does not occur in the future. These obstacles are the reasons for increasing regulations from local governments to facilitate librarians in implementing social inclusion-based library transformation programs.

3. Exploring

The exploration stage is the stage where the librarian together with the local government and community activists determines what program activities are capable of being carried out with the goals. The resulting agreement was that 2 programs were run for the society through the library for one year running.

The two programs are a bank sampah "Bank Sampah" for housewives and a library reading room for elementary school and junior high school students. To succeed in a program related to socio-economic issues, libraries must be the leading sector capable of fostering community literacy. So that this movement must become a massive collective movement in society.

a.   "Bank Sampah"

The library services provided by the rural library as a community development center are realized through waste recycling activities. Not many librarians carry out this activity, but they can play an important role in the development and empowerment of local communities and can play an important role in the economic and social development of the community. Bank sampah activity is one of the successful social inclusion programs and the results can be seen after one year. Waste Bank is not a type of bank whose operations are under the supervision of the Indonesian Bank but is a place used to collect waste that has been selected and sorted. Interestingly, this Bank sampah is managed using a system similar to conventional banking, such as the term customer, namely people who are members of the Bank sampah and deposit their garbage in this place. Savings in the form of money is an accumulation of customer waste deposits that are collected and can be retrieved within a certain period of time.

Bank sampah is facilitated by environmental activists to collect and distribute plastic waste that has been sorted by type. Sorting waste that is considered simple is actually able to bring benefits to the creative community. On the other hand, waste can be recycled into goods that are more useful and increase the income of housewives, and they also protect the environment.

The bank sampah is conducted every month by sorting plastic and cardboard. This activity has been running for more than 1 year and the results are starting to grow, this is a form of savings that can be carried for family needs

Figure 1. "Bank Sampah" activity
Source: personal documentation, 2021

Librarian concern for literacy outside of library activities can result in the development of community creativity. Through the "Bank sampah" activity, the community is given training and socialization by librarians and environmental activists at the Maospati rural library. Such as how to sort garbage and recycle it. These activities are easy to do because they are daily activities carried out, but have a big impact on both the environment and the economics.

Figure 2. Houswife as a "bank sampah" member
Source: personal documentation, 2021

Especially the housewives, those from middle to lower class families, are greatly helped by the existence of this "bank sampah", this can be seen from their enthusiasm every month, which is increasing recycling and sorting waste. The existence of this "bank sampah" has brought society to become better at handling current socio-economic issues. People are increasingly aware of the dangers of plastic waste and kitchen waste, so they are able to sort and process them into something more meaningful. Besides that, the results of sorting the waste also are sold and generate money that increases family income. When the environment is kept clean, the community's basic economic needs are fulfilled, that's where we can say, it is not impossible to turn waste into creations.

b.   Reading Room

The activities in this reading room are aimed at pre-school until high school students who feel the impact of the pandemic. Maospati rural library provides facilities that can be used to increase children's literacy, both books, and other activities. This can be an important feature of the literacy program, especially for students. It is also important to develop reading habits among rural communities.

However, their coverage is limited, to be able to reach many groups it is necessary to have a mobile library, to make it easier for the society, especially for children, to get the facilities. So, in this case the Maospati rural library collaborates with local schools to facilitate public access.

Figure 3. Children visiting library
Source: personal documentation, 2021

Even though it is within the scope of the sub-district, the local government wants the public to be able to enjoy the collections provided in the library and can be read from home as well. The government provides funding assistance for the procurement of computers to make it easier for librarians to transform libraries into digital form and accessing digital resources.

With the advancement of technology and the importance of maintaining health today, all sectors, including libraries, try to update services better in accordance with current technology. The phenomenon of internet use, the percentage is 54.68% or more than half of Indonesia's population is familiar with the internet (APJI, 2017). Moreover, the existence of study from home requires people to be able to use technology in their daily lives.

Besides providing reading room access, Maospati rural library also provides access to public spaces with free wi-fi that can be used for 24 hours for educational purposes and other social activities. The education during the pandemic was a change, the sudden change make some students have struggled to adapt to online learning, including the internet. online learning is constrained by unstable internet access and expensive internet credit. So, the stability of internet access is very important and not all families have wi-fi internet access in their respective homes.

The wi-fi access in this library helps so that the library tries to provide facilities to the community to make it easier to complete their education which is currently mostly through the internet.

Figure 4. Wi-fi for public access
Source: personal documentation, 2021

Figure 5. Library for society
Source: personal documentation, 2021

Figure 5 shows although the main objective of this program is school-age when there is no agenda held in the library anyone can use it or community organizations hold meetings. This shows that the existence of the library can be used as a collaborative space to reach many people in the community.

Services

After the library runs a social inclusion program, the local government also continues to provide supplies and support, especially to librarians. The government gives much appreciation through rewards. Support from the government is very significant, especially when the program is running so that complaints can be submitted to the government. It is undeniable that obstacles in the field from both internal and external libraries. The point is libraries carry out a transformation through social inclusion with the aim of reducing the socio-economic impacts that arise in society with the current Covid-19 pandemic.

Figure 6. The Government institution visiting ''bank sampah''
Source: personal documentation, 2021

The sustainability of this program activity cannot be separated from the government support for the library. Some of the transformations must be carried out include the development of library collections as well as adding new activity programs in libraries that are oriented towards the information needs of the library user community in order to improve their standard of living. The library program must be in accordance with the target so that the library transformation program based on social inclusion has high usability by the society.

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Comparison

Indonesia has a vary of people with different characteristics in each region. This clearly affects how the local community grows and how to solve the problems that occur. No exception with the existence of a library there, each rural library in various regions in Indonesia, especially East Java has various different characteristics. The characteristics libraries in city are different from rural area.

1. Rural Library Maju Lancar Pacitan

Maju Lancar is located in Pacitan, East Java, Pacitan is an area where most of the area is hilly. Pacitan is included in the area of the Thousand Mountains on the island of Java and is directly adjacent to the Indonesian Ocean in the north (Pacitan, 2021). This geographical location makes Pacitan had characterized by limestone and coral. Characteristics of soil like this are compatible with secondary crops, including ginger, turmeric, and cloves.

This is one of the advantages that can be utilized for the welfare of the local community. As was Maju Lancar Village, through the rural library, the government invites the community to be able to make processed products through the typical agricultural products of the area in the form of ready-to-drink herbal powders they called "Jamu Tradisional" (medicinal plants). This received a good response from the community, then the library through social media participated in promoting processed products. Especially during the COVID-19 pandemic, herbal medicine is believed to be one of the drinks that can increase immunity (Kusumo, 2020).

The librarian who manages the rural library has the right program and accordance with the community needs. This can be seen from the enthusiasm of the community who participated in the training in making traditional herbal medicine in the library of Maju Lancar. Aside from being a form of social inclusion in society, libraries are able to reduce the socio-economic impact due to the COVID-19 pandemic. Through a librarian who is also a community activist who drives the rural library in advance, Mrs. Laras Pratiwi explained that "the library of the rural of Maju Lancar has innovation in the midst of a pandemic, namely "Jamu Tradisional", which is different from other herbs because it is made from processed quality materials and several main compositions". Mrs. Laras Pratiwi is a librarian responsible for the rural library. In addition to processed products, the library also has a reading program for children called the Saleh Buku program, which is a literacy program for children to love reading from an early age.

If we look at current technological advances, of course, the rural library is far behind, because everything is based on face to face transfer knowledge and is limited only to the rural community, but the goal of the national social inclusion program through the library has actually been achieved because it is able to empower the community, through regional potential. Through the library, social inclusion programs are able to have a major socio-economic impact on the community, which has unwittingly helped the Indonesian people to survive socially and economically in the midst of a pandemic and the current uncertain situation.

2. "Ruang Belajar" Aqil Malang

In contrast to the Maospati rural library and Maju Lancar rural library, Ruang Belajar Aqil is a non-profit library that is professionally managed in the city of Malang. Located on Jalan Cempaka, Malang City, Ruang Belajar Aqil is able to synergize with technological changes and attract more young people to be active in the literacy and library fields. Various programs have been carried out both independently and in collaboration with many related institutions, such as education and the government. The managers of Ruang Belajar Aqil are also professionals in the library sector, namely librarians with LIS (Library and Information Science) educational background and some even have Master of Library Science.

Before the covid 19 pandemics, Ruang Belajar Aqil periodically had a seminar program that attends by the general public, currently, the program is carried out through the zoom meeting. The program of activities contained in the Ruang Belajar Aqil is not so conventional, but more on information literacy can be developed by each participant after participating in the program. Including carried out in the Ruang Belajar Aqil is financial literacy for children and families, this activity program has a target of housewives as family financial managers, with financial experts as resource persons so that the results of this activity are applied to be developed by each participant in accordance with family financial conditions.

It can be seen from the program of activities, Ruang Belajar Aqil is different from the Maospati rural library and Maju Lancar rural library, in the rural library the activity program is carried out traditionally with the target of the local community, carried out by exploring the potential of the area to processed and generate added value for the community's economy. Meanwhile, in Ruang Belajar Aqil, the target of the activity program is the wider community, both inside Malang and outside. Ruang Belajar Aqil also cooperates with educational institutions, like Brawijaya University Malang, especially in the library science study program, the program activities carried out are focus group discussions, sharing sessions, and participation in curriculum development at Brawijaya University. Ruang Belajar Aqil learning space is able to transform from a library that only provides a reading room to a library that synergizes with many sciences as one of the drivers of literacy in society.

In accordance delivered to the presidential directive was later be one of seven Indonesia's development agenda, that is "increasing literacy culture, innovation, and creativity" (Webinar National Library, 2021). Ruang Belajar Aqil has a good and unique concept so that it can be easily accepted in society by all groups, both housewives, teenagers, and children. During this COVID-19 pandemic, Ruang Belajar Aqil is also able to transform quickly so that it can still facilitate the community in literacy even though they do not meet in person. In addition, there are many teenage volunteers who are active in various activities held in Ruang Belajar Aqil, which is a positive response, especially for teenagers from a good stereotype about the library. This also benefits from the location of Ruang Belajar Aqil in the city of Malang, so that access to technology and the plurality of its people are definitely different from the rural area, even though both are from the province of East Java.

It is concluded that the rural library or Taman Baca Masyarakat has its own characteristics. This can be seen from the extent of the development of knowledge and what is needed by the local community. The era of information and technology disclosure is currently at a stage where artificial intelligence can be used normally in society, but not all levels of society can accept this, age and region factors also as a role in accepting technological developments. Though in developing a smart village, it is necessary to introduce the field of ICT to the community, especially to increase productivity, improve the economy, open opportunities for the distribution of information to rural communities, and support the development of rural areas (Rahmawati, 2017). Libraries have a role in aligning this gap by fostering literacy in

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society, especially in people at the age of boomers. Libraries are a place for social inclusion with activity programs that are in line with the needs of today's society, especially during the COVID-19 pandemic.

The characteristics of the community from Maospati rural library and Maju Lancar rural library are slightly different. although both are rural, the geographical conditions are very different so how responding and solving problems are also different. However, the similarities between the communities of the two rural libraries are that they both need additional economic support for family life, at an age that is no longer productive for heavy work, housewives are equipped with the simple knowledge that can increase income for their families.

In contrast to the two rural libraries, Ruang Belajar Aqil located downtown has an activity program that is much wider in scope, applicable, and able to be followed by various groups and regions. The similarity of these three libraries is that they both provide physical space for the community. There are also various collections of books that can increase the knowledge of the community. The physical space of the library is an attraction that is timeless, even though it is small, but with this physical space, there will be a meeting between layers of society and new knowledge.

So far, there is no negative effect of the existence of a library, either a public library or a rural library. Although in the management rural library there are almost no material benefits, until now there are still many community activists and volunteers who want to manage and be involved in the world of libraries for the prosperity of their people (Karnavian, 2020). It is also mentioned that the library is a driving force for science because without realizing it, the library is a physical place that contains various information from all fields of science.

FUTURE RESEARCH DIRECTION

To carry out various activities of the national literacy program effectively, three steps must be followed:

1. To be more active in socializing the community.
2. Provide ongoing support by forming literacy communities at various levels.
3. The importance of government awareness for libraries 5.0

CONCLUSION

The library, not only functions as an information center, only serves books, but also a library is a place for creativity and skill development. People come to the library for various reasons. During the pandemic, it does not reduce the spirit of librarians to carry out their activities. In fact, Librarians can play a role in their community. The presence of librarians has been useful in developing creativity and librarian initiatives to develop their communities. This can be very important and challenging in some rural communities through community development and empowerment. Today, rural public libraries contribute a lot of development efforts and great knowledge to rural communities especially children, youth, and adults. Most programs, services, and activities are tailored to the needs and expectations of community members.

In short, rural libraries and creative librarians have been able to support the community and transform them into a productive community to learn and practice what they are interested in and help them to build a strong community and make their own living.

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Chapter 11

A Missed Opportunity for Community Engagement and Data Collection:
Case Study of a Diaspora Organization in Toronto

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ABSTRACT

This research is a case study that explores the dissemination and learnings of information which takes place in a diaspora organization in Toronto, the Kutchi Cultural Association. As a community of first-generation immigrants in Canada, the informal settings and learnings within this organization play an important role in their settlement process and build a sense of shared efficacy. The diaspora gatherings become the quintessential point of community engagement where knowledge is transferred and shared. This exploratory research discovers how information and learnings flow both within the organization as well as with mainstream institutions such as the libraries, archives, and museums. It highlights a missed opportunity for mainstream institutions of engaging such diaspora organizations that play a significant role in the sharing and gathering of information, albeit veiled and unaccounted for through official means and calls for more extensive research on the subject.

INTRODUCTION

There are different types of community organizations many of which work closely with mainstream organizations and government agencies. These organizations play a key role in civic engagement and community development. They actively gather and share data which eventually finds its way into the storage facilities of mainstream institutions such as libraries, archives, and museums. There are, however, smaller ethnically or religiously based organizations where the transfer of knowledge and supports to its

members are profoundly effective but remain obscured from the mainstream entities. This exploratory research is a case study focused on one such diaspora community organization, the Kutchi Cultural Association of Canada, in the realm of their ethnicity and culture where both learnings, as well as dissemination of information, takes place, yet it remains unidentified from the mainstream data gatherers or publishers. Like many other similar diaspora organizations, the Kutchi Cultural Association brings together members of their ethnic group from various parts of the world, not only to share their culture and heritage through activities and storytelling but to disseminate relevant and official information germane to the local settings. While there may be Kutchi-speaking people who have come to Canada directly from India such as the Kutchi Memon, the focus of this research is limited to those who had made Africa their home before migrating to Canada. As a community of first-generation immigrants in Canada, the informal settings and learnings of these new immigrants within their organization play an important role in their settlement process and build a sense of shared efficacy. Canada has been known to welcome new immigrants who are highly educated, however, research has shown that their education and skills remain underutilized and their earnings lower in comparison to those who were born here (Hathiyani, 2017). The diaspora organizations play a silent but important role in the integration of new immigrants within their community.

This chapter briefly outlines the historical roots of the Kutchi Cultural Association and its activities in regard to civic engagement and community development. The key question here is what sort of exchange of information takes place within the organization and with others and how is it viewed by its members. It explores if there is a communication gap between such organizations and mainstream institutions such as the Libraries, Archives, and Museums (LAM) or other similar institutions of higher learning. With

"Community", "diaspora" and "ethnic community" have their specific definitions. There is, however, some overlap in the understanding and usage of the terms, which has been applied interchangeably in this chapter. A community may broadly be defined by its geographic proximity, religious affiliations, common heritage, social class or condition in life, interest in an issue, or ideology. The important thing is that the members must see themselves as a community or at least see the potential for becoming one (Linnell et al., 2002). Similarly, community-based organizations also have broad definitions and are understood differently. Many community-based organizations are service providers to a large geographical area or providing certain specialized services like employment, mental health, settlement, etc. There is a different understanding of community-based organizations which can be defined as a "sector (which) consists of organizations that exist to serve a public benefit, are self-governing, do not distribute profits to members, and depend to a meaningful degree on volunteers. Membership or involvement in these organizations is not compulsory, and they are independent of and institutionally distinct from the formal structures of government and the private sector. Although many voluntary sector organizations rely on paid staff to carry out their work, all depend on volunteers, at least on their boards of directors" (Government of Canada 2002, P.13). These various types of organizations may include social, religious, cultural, sports, arts, not-for-profit, etc. Some may be functioning with no formal statutes or be "registered charities" that are governed under the *Income Tax Act* that is administered by the Canada Revenue Agency.

The word 'diaspora' has been used widely in recent times with the word being applied under various circumstances. "One being that, the term and concept refer to the specific migration of Jews, which occurred under very unique historical circumstances; while the other is that of a more universal application to all cases of migration and settlement beyond the borders of native nation-states, irrespective of the migration circumstances" (Oonk, 2007. P.14). Diaspora according to Levi (2007), "refers to a situation in which a number of communities sharing a common national, religious, or ethnic identity

exist apart from a common homeland. The term also implies that, over time, the communities maintain their distinctive identity, despite their existence as a distinct minority living in a host society" (P.31). Away from their countries of origin, organizations try to bring their diaspora members together. They play a significant role in disseminating and distributing appropriate and relevant information for the good of their community. Most of these organizations are not-for-profit and mainly volunteer-based, involved in community engagement through informal work, learning, and information activation. One such organization that is the focus of our case study is the Kutchi Cultural Association which functions as a non-profit with a membership of about 200 members.

LITERATURE REVIEW

This exploratory study is broad in nature, encompassing many branches that emanate from the inquiry of a diaspora-based organization, their engagement within their community, and externally with public institutions such as the LAMs. While this literature review is not exhaustive, it captures some of the key aspects of focus in this study.

   While there have been many studies on the relationship between libraries and library users, there is not much research on community-based agencies and their connection to the LAMs or the exchange and impact of information and data between them and the community. Catherine A. Johnson (2010) investigated the relationship between public libraries and indicators of social capital in a large Midwestern American city. The research explored if the use of libraries contributed to greater levels of trust in neighbors and neighborhood institutions and if it created greater community involvement and increased civic engagement. The study found that there is a relationship that exists between library use and social capital. The level of trust and community involvement was high among library users as compared to a random city sample (Johnson, 2010). In relation to the focus of our study, what was missing in this study is the relationship of the libraries with the communities they serve.

   In her thesis on how local demographics shape the ability of the libraries in the provision of services and resources, Laura Humm Delgado (2020), emphasizes that libraries play an important role in their local communities. While being reflective of their local communities and trying to support them, they are after all a bureaucracy. The thesis focuses and explains the interaction of libraries with the local communities by providing access to information but also to gather information and form partnerships with organizations and develop programs. Delgado (2020), argues that local organizations in the neighborhoods shape the character and resources allocated to them and questions how the resources could differ in the absence of strong local community organizations.

   Using a Critical Race Theory (CRT) framework, Amber Mathews (2020) identifies that there is a gap in the collection of race-related data without which public institutions may be perpetuating systemic racism and limiting their own efforts to move towards social equity. "This means explicitly acknowledging that the social, economic, and historical realities of race and racism are not immune to public libraries. It also means looking at our programs and services from a perspective attuned to the experience of the race to identify where the dominance of white narratives, ingrained through our own racial experience, are influencing our perceptions of our services, racialized youth and their needs." (Mathews, 2020. p.11). Mathews further explains that the race-blind approach is not reflective of the needs of communities being served and argues that public libraries should gather race-specific data to understand the make-up of the users to build better and more effective relationships (Mathews. 2020). With members of KCA

being a racialized community the lack of such data leaves a gap in the understanding of engagement with such communities.

Much has been researched and written involving the diaspora(s). Since this is a case study that involves a diaspora organization, it merits a brief reflection on how these studies have evolved and lend some background to the KCA as a community. There are around 20 million South Asians living outside of South Asia spread all over the world (Oonk, 2007). They maintain, share and try to reproduce their common Indian culture. Many of these South Asians have made East Africa their home for many generations. Gijsbert Oonk has been one of the researchers who has delved into researching the South Asian diaspora and has covered many angles on their settlement in East Africa, and their subsequent migration to the UK, Canada, and the USA. Oonk (2003) traces the history of the settlement of South Asians in East Africa from 1800 to 2000 and contends that although their numbers were very low, the community was entrepreneurially successful in East Africa. Oonk (2015) further argues that "these strangers still have to navigate between being an insider and an outsider at different places and times. Even after three or four generations of running a local business, paying taxes and spending money on charities, hospitals, dispensaries and the like, they find that this is never enough to be accepted as locally loyal" (Oonk, 2015. P.77). As a result of this perception, it has made them vulnerable, leading them to develop "escape" strategies (Oonk, 2015). While this may not be the main reason, it is not surprising to see many East African South Asians in UK, Canada and US. Conversely, there is also an effort to attract the diaspora back to their home countries and reconnect with their homeland while there are others in the diaspora that have chosen to disconnect and move on from their home country (Oonk, 2018).

Another study on the diasporas is the multi-partnership study by Blunt et al (2012), on "connected communities" that involved more than 70 participants from the academic, arts/cultural, and community sectors. It explored connections within and between diaspora communities. The research focused on the present residence and connections of the Diasporas, their relationships with their respective "back home" countries, and how their current and past experiences evoked a sense of belonging (Blunt et al, 2012). This study identified gaps and makes suggestions to develop collaborative research across the academic, arts/cultural and community sectors. It also calls for collaboration between diasporic communities and the academic, arts/cultural and community sectors. It is a gap in research which this current study is calling for.

METHODOLOGY

The empirical research framework of this study utilizes an interpretive lens to analyze and get some understanding of the social capital in terms of social contact, civic engagement, and a sense of community that exists among the members and the organization. This research was constrained due to limited time and resources. There are many Diasporas in Canada. However, as a result of my background and prior knowledge about the cultural-ethno-religious organizations from East Africa with links to the Indo-Pak subcontinent, I chose to reach out to over 500 individuals through various social media groups for volunteers to participate in the research. These communities included the *Ismaili, the Ithnashari, the Dawoodi Bohra, the Nasserpuria Memon*, and *the Kutchi* communities. I chose a combination of purposive and reliance non-probability sampling methods, to reach out to members of at least five ethnically-based communities that have settled in Canada from East Africa with links to the Indo-Pak subcontinent. It was purpose based on the knowledge of the communities and reliance on the availability of the respondents

(Rubin and Babbie, 2008). A standardized, semi-structured survey was created on google survey, and the link was shared with those interested to participate in the study. They were requested to volunteer their answers with utmost anonymity and no obligation or consequence to not responding to the survey. Two sets of questionnaires were shared, one for the leaders of the organization and another for their members. There was a combination of both closed and open-ended questions. The survey for the leaders of the organizations had more open ended questions where they could share their views. This method involved getting to know the main issues in terms of engagement with their fellow community members and exchange of information with other mainstream institutions.

Responses were received from members of all five communities that were targeted as mentioned above with most replies from both the members as well as their President, were from one organization, the Kutchi Cultural Association (KCA). To reduce variables among respondents and minimize errors, responses from members of only one organization were considered. There were twelve responses from the members of the organization, hence my focus and case study on this particular organization. There were no responses from any official from any other organization except the President of KCA whose questionnaire was different from that of the members of the organization. All respondents participated voluntarily in the survey. The focus of this study was on the response of the participants with the President as an official having more open-ended questions. All of those who responded were between the ages of 30 years and 54 years, a prime cohort of active members. There were slightly more male participants 58% as compared to female respondents. The participants of the survey had migrated to Canada mainly from Kenya with some from Uganda, Somalia, Ethiopia, and a Canadian born. The response of the participants is discussed later in this chapter.

There are limitations to a non-probability sample of any study, especially those that have a small sampling size like this one. The sample size was small as the respondents volunteered themselves without solicitation. The bias of the small sample size was reduced to a minimum as the participants responded independently of each other not knowing who had partaken in the study. Another limitation due to the relatively small size of respondents is the ability to generalize the results. "Generalizability refers to the extent to which the findings of the inquiry are more generally applicable outside the specifics of the situation studied" (Robson, 2002. P. 93). However, given that this survey was sent to all the members of this particular organization; this method was probably the best strategy available to get the most participants in the limited time allocated for sample selection. Without generalizing, this method gives us a useful insight into the topic (Rubin and Babbie, 2008). Moreover, this is an exploratory study that should lead to more expanse research. This research was exploratory, explanatory, and interpretive in gathering of information and experiences of members of the Kutchi Cultural Association in their quest to come together as a community, organize themselves for the betterment of their lives and those of their children, and render their indulgence in the flow of information within the organization and external institutions. The purpose of this research was multiple in nature with an emphasis on getting an insight into the flow and preferences of information. As mentioned earlier although this study is exploratory due to limitations of time and resources, it should encourage more research on the subject to understand better the role these organizations play in civic engagement, community development, and data gathering.

KUTCHI CULTURAL ASSOCIATION BACKGROUND

History has traditionally been captured through written and documented narratives. There is however much history that has been transmitted through oral traditions, generation after generation, with little that is cataloged and preserved. Many newer communities in Canada are from Africa and Asia and come from a background of oral traditions. Their values, norms, and practices are orally shared from one generation to another. They try and keep together wherever they are, sharing the same culture, foods, language, and religion. Members of the community come together, increasing their social capital to enhance their lives and living conditions. Sampson describes this ability to work together as "collective efficacy". (Sampson, Morenoff, & Gannon-Rowley, 2002, p. 457). Many of these communal gatherings have developed into some sort of formal organization while others continue to function as informal entities. These organizations play a significant role in sharing the realities of their newly adopted country but also to safeguard their culture and traditions. Along with the cultural, social, and religious activities, there is much civic engagement and community development that takes place within the events of these organizations. Kutchi Cultural Association (KCA) with a membership of about 200 members is one such organization and the focus of our case study.

From humble beginnings in the parch lands of small dusty and desert-like warm villages of Kutch in what is currently the western part of India, to the true north and one of the coldest countries in the world, members of the Kutchi Cultural Association of Canada have had a long trek spanning many generations. This requires a lot of courage, resilience, and adventurism. Generations have passed to their present destination but the route has not been direct or the sailing smooth. It has come via Africa where many of them still reside. The migration to Africa from Kutch was necessitated as a result of trade, draught, and for some persecution. There existed active premodern Indian Ocean trade utilizing the monsoon winds where small communities from Gujarat and particularly from Kutch, sojourned and settled on the African coast (Bertz, 2021). Some communities such as the Hindu Bhatia community from Kutch used to send trade expeditions utilizing the monsoon winds to East Africa (Hathiyani, A. 2004). "Among the Muslims, the Khoja, Bohra, and Memon sects were the most active in artisan activity, while the lower castes among the Hindus worked as barbers, tailors, and washer men" (Ogino et al, 2007. P. 263). Clusters of families with their trade skills settled in various parts of Africa such as Kenya, Tanzania, Somalia, Uganda, Ethiopia, Sudan, and the islands of Madagascar, Mauritius, and Reunion where they have lived for over 100 years. They have flourished and blossomed, establishing themselves in small communities or "Jamats" in various towns they have settled, instituting schools, mosques, medical centers, and community centers. They own businesses and have contributed to the local economies. Most of the Kutchi diaspora were born, raised and educated in their respective African countries where they adapted to Swahili and local culture and foods but maintained some of their Indian heritage as well. "They are often referred to as "third or fourth or more" generation migrants, even though they did not migrate themselves; they (and their parents) were born and raised in the new countries, which they have made their own. This means that they enjoyed their education, know the local language and will probably get married locally (although frequently within their own ethnic group). Often, but not always, they carry local passports or have obtained local citizenship" (Oonk, 2015. P.77). After many generations in Africa, the Kutchi Muslim community like other Indo-Pak Asians in the region have developed a unique, self-determined combination of Kutchi, Swahili, Indian and Western elements. They, however, do not identify with the Indian Diaspora (Oonk, 2007). In the 1970s and the 1980s due to political unrest in some of these countries, they had to move once again, this time to the West, just like their forefathers, who over a century

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earlier had to leave to seek peaceful pastures. Although members of the Kutchi Cultural Association have their origins from India, the "home" for this Indo-Pak East African diaspora is Africa.

Many of those families and their progeny who had to leave Africa for various reasons are now settled in the UK, USA and Canada. Unlike other diaspora groups, the KCA has not restricted its membership to a particular clan such as the *"Luhar"*, *"Memon"*, *"Khatri"*, *"Kumbhar"*, *"Bhadala"*, etc., however, most of its members are Kutchi speaking Muslims from East Africa with similar historical, cultural and religious backgrounds. They are professionals and business people contributing as much to their community as they are to their respective adopted country. They meet regularly during the year for communal, religious, and educational events. An annual communal picnic is usually the highlight during summer where the turnout of the members is at a peak. These meetings are popular amongst the members where traditional Swahili and Indian foods are shared. Although, COVID-19 pandemic has put a dent in the possibility of physical meetings taking place, however, virtual zoom meetings have replaced those physical gatherings during the lockdown.

These virtual meetings have been found to be popular with more meetings being organized revolving around health, religion, and self-development. On a regular basis, the organization supports its members through sharing of information on Covid-19, community-related information, back-home-related news, deaths or births within the community, and general awareness activities of the government. The members support each other around these issues as well. The organization frequently utilizes the expertise available within the association to educate, assure and support its members on issues of wellness, health, financial literacy and religious fulfillment.

BUILDING SOCIAL CAPITAL THROUGH COMMUNITY ENGAGEMENT

The use of social media has been found to enhance social capital and can also be considered to be intertwined with and lead to better civic engagement (Putnam, 2000). "Civic engagement refers to the ways in which citizens participate in the life of a community in order to improve conditions for others or to help shape the community's future" (Addler and Goggin, 2005. P. 236

Figure 1. Types of community engagement activities experienced by members.
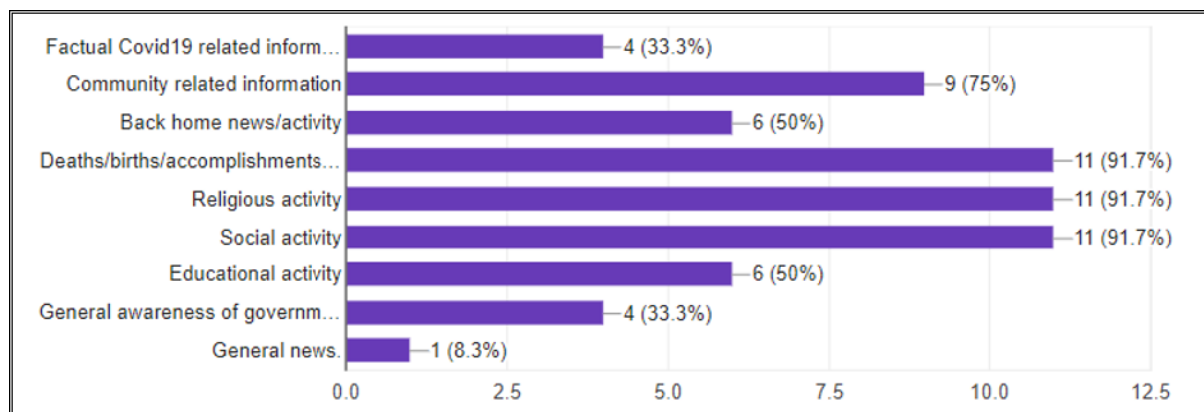
There is a wide range of understanding and definitions of the term civic engagement. Diller (2001), explains Civic Engagement as "an individual's duty to embrace the responsibilities of citizenship with the obligation to actively participate, alone or in concert with others, in volunteer service activities that strengthen the local community" (P.21). Putnam (2000) goes a little further and broadens the definition to include both formal activities (committee service), community and political participation, as well as informal social activities such as visits with acquaintances as well. In this study, the focus is on the community as a function of engagement to promote civic responsibility and community development. Findings from this research showed that community engagement for KCA was wide and varied.

For most members who responded, the engagement as seen in *figure 1* was in the form of information in regards to social activity, religious activity, wellness, official announcements, and community information regarding birth or death in the community. There were also several respondents who felt the organization engaged them on factual COVID-19 related information, educational activities, community-related information, and general awareness of government issues. Such engagement by the organization as highlighted above by Putnam (2000) can lead to beneficial outcomes and benefits for both the organization and the community.

The community organization plays an important role in sharing of official information and organizing activities that benefit the community. By bringing the community together, members who are from various professions and backgrounds, the Kutchi Cultural Association is in essence enhancing the social capital of their members as well as of the organization. Putnam (1993) asserts that in order for organizations to be conduits of civic engagement, they must also possess social capital as an important ingredient in what they have to offer. The top four types of engagement preferences of the respondents were social events, capacity and unity building, sustainability of the community, and religious functions. Participation of members in these types of community-based organizations where they come together for the common good can be seen as an illustration of social capital where "relationships based in patterns of reciprocal, enforceable trust that enable people and institutions to gain access to resources such as social services, volunteers, or funding". (Schneider, 2007. p.573). Information during such interactions does not flow in one direction. It streams from various directions such as from administrators to members, and vice versa but also amongst members as well. Social capital has been found to have positive outcomes and be beneficial to the community resulting in higher retention of students in schools, lower crime rates, enhanced health, and the ability of communities to problem solve (Hutchinson & Vidal, 2004). Social and religious activities of the organization were the main engagement undertakings, educational and important information such as on Covid-19 were seen to be beneficial to the community.

DIGITAL ENGAGEMENT

Although non-face to face relationships have existed before the advent of the internet, these were limited. Online interactions have filled communication gaps between face-to-face meetings and make distant ties more viable (Quan-Haase et.al, 2002. P.6). Digital communication has become even more prominent during the Covid -19 pandemic, playing a critical role of bridging the gulf on social distancing. Based on the responses from the members, the three most common forms of communication methods as seen in *figure 2* was through the use of WhatsApp, Email, Facebook and phone call. The first three digital approaches were also the most favored communication techniques.

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Figure 2. How the organization communicates with the members.
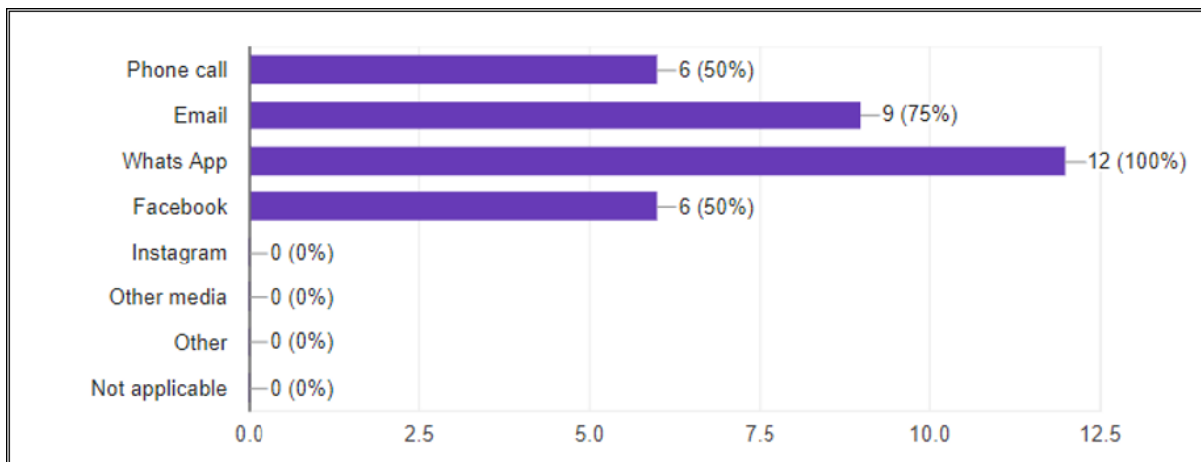
Figure 3. How the members would like to be contacted.
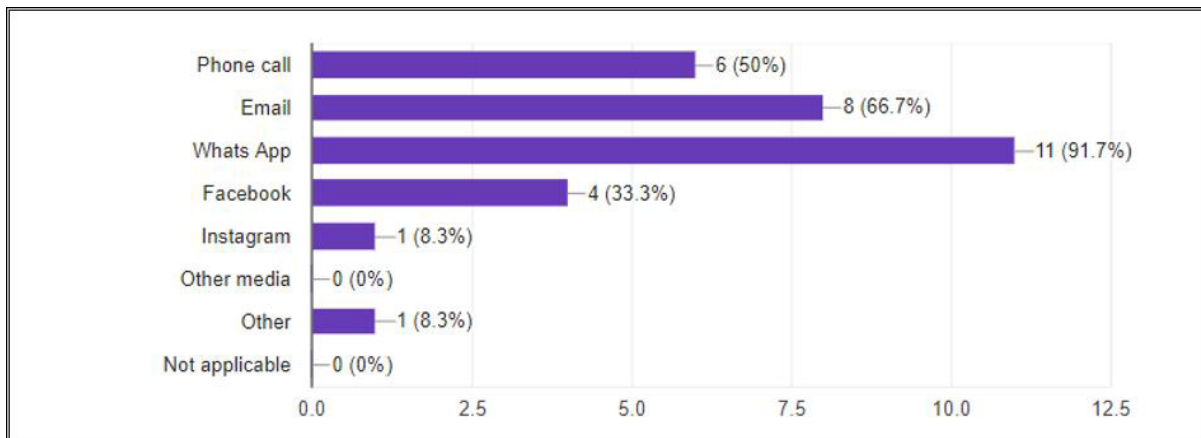
It can be seen how the use of digital media has dominated engagement and communication discussion. An important question that arises in the debate around the internet is in regards to its impact on civic engagement. Has the advent of the internet heralded a new chapter in social capital? According to Robert Putnam (2000), there has been a reduction in people coming together as a community because of the internet. Based on his argument one can reason that due to increased online time there could be an increase in interpersonal alienation leading to a decline in social capital.

Many would support the argument that the use of digital media has distanced people in their interaction and social transactions. However, a study by Quan-Haase et.al, (2002) suggests that the "Internet is increasing social capital, civic engagement, and developing a sense of belonging to online community" (P.28). At this time of the pandemic and lockdowns, the internet has provided means of connecting with friends and family. WhatsApp and Email as seen in *figure 3* were identified as the most common forms of communication preferred by the respondents. This was corroborated by the President of the KCA organization emphasizing that "digital communication, virtual sessions, as we have not been able to meet

during the pandemic, for the last one year have worked well (for us). WhatsApp was the most common medium used". The internet has become an important tool of communication for the individual as well as formal and non-formal groups engaging with them in ways and frequencies never witnessed before. "Email use increases network capital by supplementing existing levels of face-to-face and telephone contact. For all forms of relationship – kin and friend, near and far – email increases the total volume of social contact by adding its connectivity to continuing levels of face-to-face and telephone contact" (Quan-Haase et.al, 2002. P.26). One can therefore surmise that devoid of the internet and the channels currently available for communication, facing this pandemic and their outcomes would have been very different.

COMMUNITY ENGAGEMENT OUTCOMES

Conceptualizing community engagement in simple words is what it states, engaging the community. This could be done through outreach, consultation, involvement, collaborations, activities etc. As the flow of new immigrants to Canada continues, they get together, form groups and support their membership. There is much trust that is garnered between members in many ways. While some members are vocal, others remain silent, placing their trust on their leadership. Whatever the activities of the organization, the outcomes are an important sign of its inadequacies or success. Through the activities of KCA, the respondents to the survey felt engaged and connected. They felt a sense of belonging to the country and felt valued as a person. A sense of belonging plays a key role in the settlement process of immigrants. Maslow (1954) considers it to be a basic human need. A sense of belonging is defined as "the experience of personal involvement in a system or environment so that persons feel themselves to be an integral part of that system or environment" (Hagerty et al. 1992. p. 173). Sense of belonging is one of the "vehicles that mobilizes attention and conversations on current social concerns, and bound to lead to many different specialized and localized applications" (Painter, 2013. P. iii). It can produce positive outcomes as identified in this study. Along with displaying a sense of belonging to their new homeland, the participants in this study felt a strong attachment to their ethnic group as well. Salami et al., (2019) argue that this strong attachment to their ethnic group could be as a result of the lack of ethno-cultural diversity in their local community organizations and Canadian mainstream society. The gap that exists at the mainstream level could be seen as being filled by such ethnic religious organizations like the KCA.

There were other benefits the respondents identified as having made a difference with their engagement to the KCA. They felt more engaged and connected. Importantly, they felt supported and not isolated. Individuals have reported loneliness when they had more time to themselves than usual. This has been more evident with various social distancing measures that have been put into place during the Covid-19 pandemic exacerbating an increase in loneliness for older adults which has led to unintended mental health consequences (Pauly et al, 2021). The restrictions of movement and meeting other people have meant that social interaction is limited. Confined to a small apartment, restricted in physical movement and regulated in the gathering of people can be stressful and challenging. Organizations such as the KCA play an important but unintended role of filling the gap and indirectly addressing issues of mental health for these immigrants. They organize events and activities which many members look forward to.

KCA organized virtual health and spiritual event during Ramadhan, the Muslim fasting month where spiritual and health benefits of fasting were characterized by professionals from within the community. The goal was to create an awareness and an understanding of the physiological and spiritual changes

encompassing the body. This was built on enhancing the wellness of the individual as well as the overall health and development of individuals. Participating in creative behaviors or activities might be linked with reduced loneliness (Pauly et al, 2021) and in turn, had a positive impact on mental health. According to the President of KCA, organizing of such activities "brings the people closer, instant updates of information, empowering members with necessary information."

Figure 4. How the activities of the organization made a difference to the members
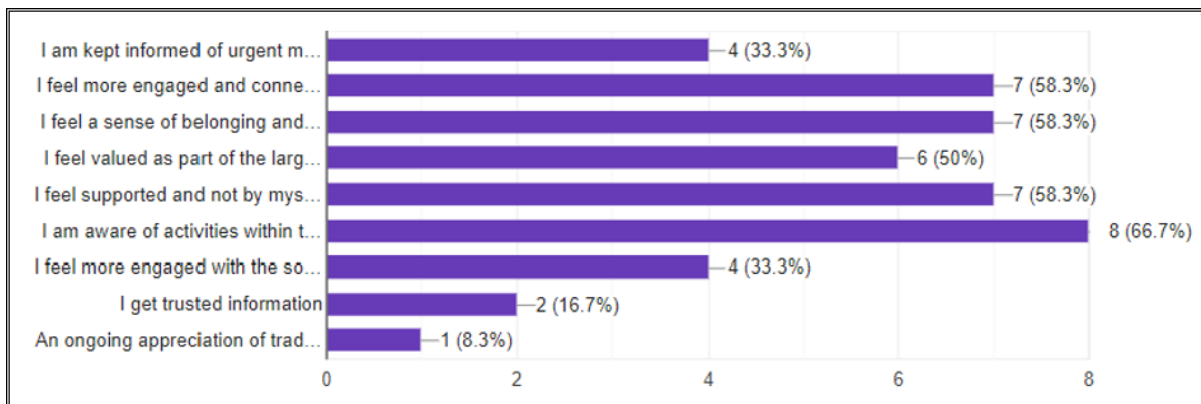
Figure 5. Where members got their information from?
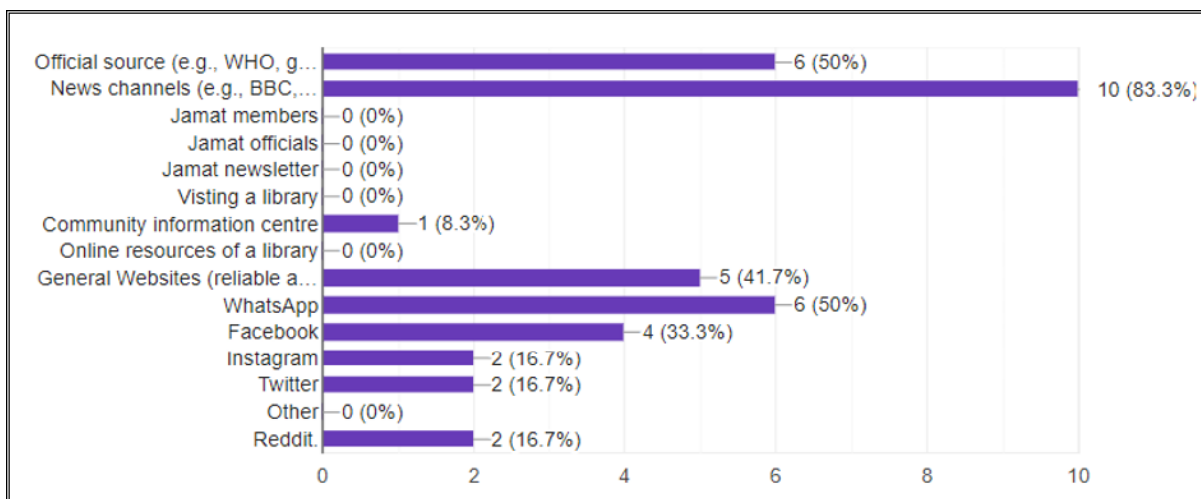
The organization has built trust with community members which was reflected in the responses of their members. Small communities like the KCA form part of a bigger mosaic of the country. It can be argued that these smaller organizations are playing a critical role for the larger community to be prosperous and pacific. It may not be intentional, however, such engagements with its members play an important role in addressing mental health-related issues of loneliness, feeling connected, belongingness, trust, and feeling valued. A virtual event that was organized involved a naturopath doctor who gave guidance

and advice on keeping physically and mentally healthy during these challenging times of the Covid-19 pandemic. The event was so popular that a follow-up event had were organized.

The main source of information for respondents in the survey (*figure 5*) was through news channels and official sources. Information from acquaintances through WhatsApp was a common source of information. While Facebook was a point of information, contrary to widespread belief, Instagram, Twitter and Reddit were found to be not very popular.

A significant finding was the lack of engagement or utilization of services with the libraries. There was no single person who identified using the libraries for gaining information or even accessing it. The internet has eclipsed libraries in their traditional role as trusted reservoirs of information. (Matthews, 2020). Combined with lockdowns of the Covid-19 pandemic restrictions, the importance and role of the libraries and similar institutions has changed. To attract more patrons the libraries and traditional institutions will have to be creative and engage users in a positive way to survive in the long term. Traditional methods of engagement may not be as productive and so new strategies may need to be adopted. More so, there is a changing and increasingly diverse population whose needs may be different. Engaging institutions such as the KCA can play a positive role that works to benefit both the communities and the institutions in general.

CHALLENGES FACED BY KCA AS AN ORGANIZATION

The President of the organization identified that the challenges his organization faces are many. For a small organization like the KCA that is trying to bring its community together and has no funding has to rely on the goodwill of its members. Funding plays a key role in the ability of an organization to function and be productive. Despite their limited resources, the KCA organizes many activities and events throughout the year. While their meetings are well attended, the President felt that creating interest and maintaining their involvement in the community is a challenge. As a young community whose members are mainly immigrants, the main focus is to settle down in their new adopted country. During this time there are many individual challenges that members have to encounter. People immigrate to Canada for various reasons. It might not be as difficult to find an apartment, enroll in a school, open a bank account, or go and buy groceries, however trying to find employment and being economically stable may pose a big challenge (Hathiyani, 2006). Views about immigrant settlement in Canada are changing which has eased some of the challenges newer communities face. Studies have shown that Canadians have become more open and receptive to immigrants (Neuman, 2020).

There are many other logistical challenges the organization faces as mentioned by the representative. As a young community, it has little organizational capacity. When members are engaged in their own settlement process there is little time available for other extra-curricular activities. The leadership has identified various areas of focus such as the youth, social media, programs, etc., and consistently seeks volunteers for its programs. It is important to note that even with the volunteers, an organization still requires expertise in those areas to guide for positive outcomes.

Another significant difficulty faced by the organization is the lack of facilities to organize activities and events. The organization relies on donations from its members. With limited resources it has had to rent facilities and these come with restrictions on activities and time, curtailing what they can and what they cannot do. Further to this, the Covid-19 pandemic has brought restrictions with no in-person gatherings. They have switched to virtual events that have been found to be successful. The President

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of the organization identified other challenges such as lack of technological expertise and lack of opportunity or networking with mainstream organizations. The organization had not been approached by any mainstream organization and lacked contacts to reach out to them. These challenges have had an impact in the growth and fulfillment of the vision of the organization.

DISCUSSION

In the past, research, academic, and published information was mainly available through the educational institute libraries and public libraries. Both have conversely worked in silos, having their own set of rules to membership or criteria for accessibility of information. Since the late 20th century, the internet has unleashed affluence of available information and sharing of resources never imagined before. There is no shortage of information that is freely available on any topic. Some of this information is credible while there is other that may not be verifiable or authentic. Traditionally, when it comes to research material, universities and colleges are the main places to access such information. These, however, cannot be accessed by everyone. As a researcher who is currently associated with community agencies and not linked with a university or a college, it is demanding to access scholarly work. Similar circumstances apply to public libraries. There are about 100 libraries in Toronto that are accessible to most residents of the City. They are spread all over the City in almost all neighborhoods. The question that arises is what percentage of a neighborhood utilizes the services of their library. Conversely, how are the libraries engaging these communities and indeed the organizations that represent them? For those who are utilizing the services of the City library, there is a limitation to the knowledge one can attain as they do not have access to the University and College libraries. Similarly, those who have access to the university and college libraries may not automatically have access to the City libraries. While both these types of libraries are repositories for scholarship, information and education, there is not much interface between each other and are limited in their outreach to the general population. This research touches on the diaspora communities who are new to the country, highly educated but with few connections if at all, to the mainstream institutions. It identifies two way gaps in communication with the mainstream organizations. Kutchi Cultural Association has no links with the mainstream organizations and there is no funding available to them to acquire resources and engage them. On the other hand, mainstream institutions have not been effective in reaching out to them. This research highlights that there is a missed opportunity from both sides, the established institutions for lack of outreach and the smaller newer organizations to seek support that will enhance community engagement and development resulting in better outcomes for all. Access and sharing of information with them can benefit both the institutions as well as the local community. Appropriate information, education and knowledge can play an important role to enhance and develop any community and such opportunities for engagement should not be missed out.

Although the Covid-19 pandemic has restricted face-to-face meetings, it has exposed more people to the use of digital media. The pandemic enforcements of social distancing has heralded and hastened the unfolding of new methods of communication which otherwise would not have happened at such a fast pace. While some may have been skeptical of its benefits, the use of digital media has been found to increase social capital, civic engagement, and developing a sense of belonging to the online community (Quan-Haase et.al, 2002). KCA and similar organizations have organized more virtual activities during the pandemic compared to pre-pandemic times. Although the study by Quan-Haase et.al, was done years before the pandemic, the findings are significant in regards to digital media whereby, "people

not only have more relationships than in pre-internet times, they are in more frequent contact with their relationships, and the strengthening of the bonds through more frequent contact means that ties can be more readily mobilized for aid" (Quan-Haase et.al, 2002. P. 28/29). In spite of having no formal training, the respondents had made an effort to use the various social media applications to be effective in their communication with fellow members. Mobilizing smaller organizations could build built better community resilience by sharing authentic information critical for a positive response especially during a crisis such as the pandemic.

Organizations such as the KCA may not be able to identify any tangible or physical accomplishments, but they make a difference to their members in significant ways who otherwise may not have been able to benefit. KCA does not receive any funding from any government source. Their communication with the mainstream institutions was very limited. A challenge that was identified by the President of KCA was "lack of opportunity or networking with mainstream organizations". This statement has identified a significant gap that has curtailed not just the flow of information but possible collaborations. There is much flow of information from the organization to its members but also within its membership under the platform of the organization. There are relevant and critical conversations that take place within them. One might argue that these organizations may not be sizeable to mainstream organizations or the data gathered to be insignificant but they play a critical role in their ability to connect with a particular segment of the population that may not be able. One should not lose sight that these organizations have the confidence and trust of their members and their numbers could add up or provide some key information that could otherwise have been missed. Engagement cannot happen without knowing who to engage with, or what the process entails, or even having some sort of a tool kit to guide them on connecting and forming relationships with the mainstream institutions such as the LAMs or any other government body. On the other hand, do the mainstream institutions have a strategy of engaging such communities and their organizations? If they have are these organizations aware of them. From the findings of this study, it does not appear so.

Engaging these smaller organizations has multiple benefits. It can help change the way data is collected by mainstream civil service groups such as the LAMs, government institutions, or universities. This can lead to creating more inclusive pathways and expanding meaningful opportunities to develop a robust database. Building strong linkages and partnerships with such organizations can enhance their capacity and lay groundwork for data flow in both directions. "These organizations can gain enhanced knowledge, a higher profile in the community, more linkages with other community members and entities, and new organizational capacity. These benefits can create goodwill and help lay the groundwork for subsequent collaborations (McCloskey et al. nd p.8). Collaborations and partnerships bring people and organizations together that can benefit all in the development of the community, the organizations involved, their members and the possibility of reliable data flow and collection.

The KCA organized a virtual event that the researcher attended, on wellness utilizing an internal resource, a naturopath doctor. The medical professional talked about ways to keep well and healthy, giving suggestions on both physical and mental health. The doctor, a member of the same community, alleviated concerns and addressed negative rumors about the Covid-19 vaccine. While this was a virtual event, the attendance from the members was close to a hundred. The feedback received was positive, signifying the trust and respect members had for the professional, one of their own. In a recent international study on conspiracy theories and rumor-mongering, 637 vaccine-related items of misinformation were identified in 52 countries with 92% of them being rumors and 9% conspiracy theories (Islam et al., 2021). The governments are investing millions of dollars to address such misinformation which can lead

to hesitancy and mistrust leading to dire consequences to the health system. Yet the doctor at the session was able to alleviate most concerns with no cost to the government. The value of the event by KCA for its members was indisputable, yet would go unrecognized with mainstream organizations. There was no funding from any source nor were there any resources allocated to them. The service the organization was providing was significant but a missed opportunity for mainstream organizations. There is a gap that exists and a need for them to reach out and be reached out. It is unapt to have such activities go unnoticed or undocumented, as they are for the common good of everyone, the government, community agencies and the population at large. Such organizations provide a safety net that helps address gaps that exist under mainstream institutions.

CONCLUSION

In light of COVID-19, it has become more evident organizations similar to the KCA, play an important and significant role albeit veiled in the assembly of data from mainstream institutions. There is no doubt that smaller organizations have challenges. Their influence and networks are limited but these can be overcome through collaboration and opportunities to grow and build capacity that can benefit all. This chapter has highlighted that smaller diaspora organizations such as the KCA are active in community development and have the trust of their members. There is no formal communication or engagement of such organizations with mainstream establishments, identifying a missed opportunity of engaging them for development and the flow of information. The smaller organizations on the other hand could reap more benefits if they reached out to the established institutions, build partnerships and got their requests known to them. While these findings identify a missed opportunity for all parties, they may not be generalized. They nevertheless give us an initial insight into issues that are relevant and significant with a call for more expanse studies. To understand the diaspora organizations better and their engagement with mainstream organizations such as the LAMs, a more detailed and broader study that encompasses different Diasporas is warranted. Furthermore, to get a better understanding of the members' feelings and identify issues that may otherwise not be accessed through close-ended questions, an exhaustive qualitative study would be appropriate. This initial exploratory study has raised many questions which otherwise may not have been identified. It has laid some of the initial bricks and mortars for a more solid structure and revelation into the issues.

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Chapter 12

Designing an Education Curriculum Through Collaboration With Institutions of Higher Learning, Libraries, Archives, and Museums:
Case of Kruger National Park

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ABSTRACT

The chapter assesses the role of institutions of higher learning in designing education curriculum in collaboration with the library, museum, and archives (LAMs) of the Stevenson Hamilton Knowledge Resource (SHKR) center based at the National Park. This research is based on a qualitative research method. The finding of the NP case study underpins concepts and outcomes described in academic discourse on the relationship between institutions of higher learning and LAMs. LAMs may serve as lifelong learning in South Africa. The results of empirical research allow the researcher to conclude that designing educational materials requires the collaboration of the Ministry of Basic and Higher Education, Training, Science, and Technology and LAMs.

INTRODUCTION

This book chapter assesses the role of institutions of higher learning collaborating with a library, archives, and museums (LAMs) on designing education curriculum from the Knowledge Resource (KR) center of the National Park. The National Department of Basic Education and Higher Education and Training in South Africa and the Kruger National Park may collaborate to design an education curriculum that will

appeal to both pupils and communities. Design of education curriculum through the use of the LAMs contribute to the transformation of education curriculum. Based on the researcher's knowledge, there is less study conducted in South Africa one designing education curriculum through a collaboration of institutions of higher learning, school, library, museum, and various communities. The researcher aimed to add to this limited body of knowledge by exploring the role of the institution of higher learning, library, archives museum, and communities on the design of educational materials.

BACKGROUND

South Africa government established two departments responsible for education. The first department is responsible for primary and secondary education. This education covers elementary school until grade 12 in South Africa. Another department is responsible for higher education and Training. Higher Education in the context of South Africa includes twenty-six public universities and Technical Vocational Education and Training (TVET) colleges. Both departments develop curriculums to be followed by both educational institutions. Experts in the field of education are responsible to design curriculum. South Africa education curriculum for both primary and secondary is not designed through a collaboration of universities and LAMs. LAMs in South Africa worked in silence without consulting the department of education. This is maybe because LAMs report to the Department of Sport, Arts, and Culture. The fact that there is a lack of consultation between LAMs and the department of Education shows a lack of professional interaction. The key strategic objective of the department of education is to engage with key stakeholders to assist in reviewing the education curriculum. The South African National Park is one of the key strategic partners in South Africa to offer education.

The role of the National Park resource center after the transition from the apartheid system to democracy was to offer lifelong learning (Netshakhuma 2019). National Park has a historical resource center that offers a library, archives, and museums functions. The center plays a role to offer educational activities. It is the view of the author that the center may also play a role to assist the department of education in designing education curriculum. The LAMs at National Park may play a role to transform education in South Africa. This statement is alluded to by Semali (2015) who states that LAMs inherited from the apartheid system can be reformed rather than overhauled to design education curriculum (Semali, 2015).

South Africa provides context to design educational materials as a form of service-learning and civic engagement in higher education (Bringle and Hatcher, 2005). Educational materials design requires the collaboration of institutions of higher and library, archives, museums.

To assess the role of LAMs, the researcher chooses the National Park resource center as a case study to conduct this research. The reason the researcher choose the Kruger National Park is that LAMs functions are integrated into the Knowledge resource center. This research is limited to selected staff from the SHKR center based in Skukuza.. The researcher recognizes that this was a small study, set in one national park known as the Kruger National Park. However, participants varied and were drawn from LAMs and communities. Participants in the study were voluntarily taking part in the study.

The knowledge resources known as the Knowledge Resource (KR) center was established in 1961 and it consists of LAM sections (Netshakhuma, 2019b). The fact that the National park is one of the biggest national parks in the world made it ideal for the researcher to select the park to conduct this research. This statement is also stated in the South Africa National Park annual report (2018) reported that Anonymous National park is one of the biggest national parks in the world. The Anonymous Na-

tional Parks visit statistics showed that most tourists visit Kruger National park to learn about history, culture, heritage, natural science, and geology about the park. Furthermore, the fact that the researcher was previously employed by the park provided him opportunities to understand the history of the park.

Problem Statement

There is a lack of curriculum design based on primary sources from libraries, archives, museums for both primaries, a secondary and tertiary institutions in South Africa. Therefore, a comprehensive education curriculum design through the integration of primary sources from LAMs is necessary to transform the education system in South Africa. It appeared that during the apartheid period, there was a lack of consideration of of LAM on education curriculum design. It appeared that the education curriculum design of the LAM is not standardized in a South Africa education system. This statement is alluded to by Hlongwane, (2019) who indicates a lack of standards to implement recognition of prior learning. This is an indication that LAMs are used for primary education. Design of education curriculum is an area of contestation of the education system in South Africa.

Research Methodlogy

The qualitative research method was used for this study. This is a case study where the researcher selected participants . The research visited the National park LAMS and selected community participants to collect data. The research was conducted from July to October 2019. Due to the study population, the research sample was convenience small. A purposive sampling strategy was used to select participants to participate in this study. Twenty (20) participants were selected to participate in this study. The researcher conducted interviews with 10 staff from the Anonymous National Parks at the KR center-based. These participants were selected because they deal with archives materials, and artifacts daily. Furthermore, these participants also conduct lifelong learning or outreach programs for schools and universities visiting national parks' for education purposes. The selected 10 community activists were selected to participate in the project. Other 10 participants were selected community activists who reside close to the national park. These communities members were involved in various projects in the park. The reason the researcher selected community members was to assess whether the visitor was aware of the value of the LAMs in the Park.

Interviews with the participants based at KR were conducted face-to-face. Interviews were audio-recorded and transcribed verbatim. The researcher started interviews with open-ended questions, asking participants to describe their experience of using LAMs for the education curriculum.

LITERATURE REVIEW

Selected Countries Used Heritage Resources Materials for Educational Activities

It appears that most developed countries use LAMs to design education toolkits. The review of the literature shows that LAMs are used to design educational resources. The British government used LAM for social inclusion and life-long learning. This statement is alluded to by Usherwood, Wilson, and Bryson,

(2005) who state that LAMs play a role to transform education in the United Kingdom. This means that lifelong learning was integrated as part of the full education curriculum.

To move with time, European Union members involved in a project to share LAMS online. Manzuch (2009) states that European Union projects such as Culture 2000, the European Union program dedicated solely to cultural priorities, eContent digital project in by the European countries, eTen, is a project designed to exploit opportunities offered by digital networks for social and cultural needs and activities and Information society technologies demonstrated a narrow approach to communication of memory in LAMs. These projects were initiated to ensure that LAMs are available to European Union members.

The United States of America schools, universities, colleges, and primary and secondary schools use LAMs as a source to design education curriculum to enhance teaching and learning. This means that both students and academics relied on LAMs to conduct research, assessment, and assignments. A study conducted by Scheuerell and Jaeger (2015) indicates that high school classrooms that taught African history use LAMs to design education curriculum. A study conducted by Sirinides, Fink, and DuBois (2017) indicate that the United States of America museums and libraries during Colonial America used LAM to design education curriculum. The colonial history of the United States covers the history of European colonization of America from the early 16th century until the incorporation of the colonies. A study by Gibson, Morris, and Cleeve (2007) stated that collaboration projects focused on learning and user-centered.

A study conducted by Zhang, (2016) indicates that incorporation of electronic records into the curriculum of archival education in North America appeared in literature in the 1990s. Schellnack-Kelly (2019) states that the United State of America National Archives established a history hub where universities and schools collaborate with the National Archives to share information and stories preserved in the archives. The history hub is a collaborative initiative between the United States National Archives, Office of Innovation, and Information Technology divisions.

The study conducted by Schellnack-Kelly (2019) found that Australia uses LAM artifacts to design an educational toolkit. The National Archives of Australia (NAA) developed the National Digital Learning Resources Network (NDLRN) to provide access to information. The National Archives provides teachers and lecturers with digital resources to design curriculum. The teachers' links resources to school projects such as assignment and assessments. The project team accessed archival materials such as photographs, audiovisuals materials, and environmental materials.

LAMs Role in Education Curriculum Development

LAMs play a role to provide early learning (Sirinides, Fink, and DuBois 2017). That is dependent on infrastructure such as finding aid, information communication technology in place. Furthermore, LAMs relied on skilled personnel to provide professional advice and management of information management system. This means staff working in LAMs are to possess appropriate qualifications to assist to design an education curriculum. LAMS provides an infrastructure for research and business in an organization (Caidi, 2006). Information literacy and user education are deemed essential issues in LAMs. Design and development of pedagogically based on the following principles as alluded to by Boyle (1997).

- Provide experience in the knowledge construction process
- Provide experience in and appreciation of multiple methods of teaching and learning
- Embed learning in realistic and relevant contexts

- Encourage ownership and voices in the learning process
- Embed learning in social experiences
- Encourage use of multiple modes of representation
- Promote self–awareness of knowledge construction process

LAMs are thought of as curricular resources and archivists are requested to play the role of educators (Carini, 2009). Archivists are familiar with heritage resources in the heritage resource Centre. A role of archivists as an educator requires integrating primary sources into the education curriculum. Brondo, Kent, and Hill (2016) indicate that archival resources that support teaching and research have been reduced or eliminated because the institution of higher learning did not extend to in the context of higher education. Schellnack-Kelly (2019) alluded that Institutions focus on directing the use of technological tools and digital resources, coupled with the willingness of lecturers to include archival resources in teaching and learning activities. They emphasize LAMs in education, marketing, and fundraising. They provide a unique position to provide experience for visitors and to engage the public in terms of their rich and existing content (Lo, But and Trio 2014). It seems that most organizations digitized archives material without the preparation of metadata. Training and skills related to the collection of digitization materials were not included by most organizations.

A study conducted by Wessels and Mnkeni Saurombe (2012) emphasized the issue of digital content in teaching practices. LAM education must transform to respond to information communication technology (Klimaszewski, 2015). This implied that Information Communication technology is embraced by neither teachers nor lecturers. use of LAM materials provides an entry to address an acknowledged gap in the education literature.

Cultural heritage Institutions create digital content to ensure that information is available everywhere in the world (Fresa 2014). This implied that cultural heritage institutions develop a strategy to enhance the permanent preservation of LAMs records. Organizations are to use purpose build archives to preserve their archives. Such archives are to be integrated with information Communication technologies. The study conducted by Schellnack-Kelly (2019) indicates that failure to use advanced information communication technology for outreach and public programming by trusted custodians could curtail LAM to maintain cultural heritage and sustainability by not providing more audience with effective access to collections. Memory institutions embrace information communication technologies to meet the needs of changing digital age on designing education curriculum online (Zeng (2019). The educational materials provision online implied that LAMs face the challenge of building online resources, increase access to research resources, and providing new services (Liebetrau, 2005). Hence, cultural heritage institutions provide a source of reliable and verifiable primary resources.

The study conducted by Usherwood, Wilson, and Bryson (2005) found that LAMs are perceived as a source of informal teaching and learning. The provision of historical and evolutionary context from LAMs form part of informal teaching and learning. For example, libraries house text-based resources in the form of printed records, archives preserve stored related to handwritten, resources in the form of manuscripts, personal and institutional papers, photographs while museums preserve artifacts such as archaeological, architectural, scientific, and art galleries rich in visual resources in the form of artworks.

It appears that LAMs are used by students and academics from high-class advanced communities. This statement is alluded to by Gaffney (2010) who states that the use of digital resources determines socio-economic circumstances. Education curriculum design aimed to develop youth to attained broader socio-political objectives (Brass, 2016).

Education curriculum may be designed through a collaboration of archivists and archival institutions. Fernheimer, Boyd, Goldstein, and Dorpinghaus (2018) states that pedagogical design that supports sustainable growth relies on community partnerships between students and the community at the University of Kentucky Special Collections Research Center in the United State of America. The collaboration contributed to the expansion of public access to oral history interviews through student-authored metadata, grow oral history collection itself through student- conducted interviews, enable hands-on learning, authentic research experiences, original knowledge production, embedding pilot courses into university curriculum to institutionalize implementation of this model. Through collaboration, curriculum design is around oral history and archival collections, giving students, faculty, and community members opportunities to focus on research collections and connect both broadly and deeply. Collaboration contributes to building relations between the university, local and regional communities. Furthermore, it has created a framework to build future collections.

Information Communication technology played a role to shape the education curriculum. It also presents opportunities to link information and, to a degree, rendering the processes that transform information into knowledge apparent (Withers 2017). Online LAMS is the benefit to the community because of the following reasons:

- People from different areas may access LAMS

LAMs develop culturally appropriate access to their collections for local people. Although digitization/collaboration and convergence stimulate access to LAMs materials, the inherent physicality of LAMs material in this instance is significant to a community than online access as alluded to by (Shortall 2016).

Most of the cultural heritage institutions adopted Information Communication technology as an enabler to provide access to heritage resources (Liebetrau 2005). Users are trained on information communication technology to enable them to access heritage materials. (Zhang, 2016). Most organizations use information communication technology to access LAMs. (Liebetrau 2005). The impact of electronic records and digital information on archival knowledge and skills is extensive and countless (Zhang, 2016). This is so because archives users need archival skills and knowledge to access archival materials. This statement is alluded to by Scheurell and Jaeger (2015) who indicate that users search primary archives materials on various databases.

Technology provides opportunities for LAMs institutions innovative ways of repackaging teaching materials and to present digitized resources based on the requirements of users.

Information Communication Technology provides opportunities for cultural heritage institutions to be innovative to repackaged LAMs for teaching and learning purposes. The presentation of digitized resources depends on the requirements of schools. Therefore heritage institutions are to develop Information policies to determine standards on access to information.

The use of LAMs requires organizations to adhere to the requirements of heritage management programs facilitated by an institution. Information Communication technology contributes to the cultural heritage sector by demanding new models for the creation, management, and storage of information, new models for accessing digital material's and creating new users.

Collaboration

LAMS is to collaborate to share resources preserved in their repositories for the benefit of communities. This is so because LAMs preserve research documents, historical, cultural records. Archivists change or add information depend on communities' needs and requirements.

The study conducted by Caidi (2006) states that government, civil society, international organizations, and community organizations are to join hands to design LAMs curriculum. Collaboration with private LAMs non-governmental organizations, Higher education institutions, and other interested parties lead to the design and development of teaching materials, sharing of expertise, and opportunities that help archivists in Southern Africa on the issue of heritage management program (Saurombe, and Ngulube, 2016). Collaboration with communities ensured that curriculum design is based on communities need. This statement is alluded to by Fouseki and Vacharopoulou (2013) who state that LAMs engage communities to ensure that their research output is known by various stakeholders.

The archival collection depends on LAMS and communities aligned to an educational program offered by a department of basic and higher education and training (Schellnack-kelly 2019). This may influence none regular users of LAMs to visit the institutions.

In South Africa, it appears that there is no institution of higher learning offering qualifications combination of LAMs. This statement is alluded to by Klimaszewski (2015), who states that institutions are not closer to a fully integrated curriculum across these fields. This slow response to a change in LAMs professional education is associated with the politics of inertia inherent in academics. The size of the profession constraints the development of academic programs to educate librarians, archivists and museologists, (Eastwood 2017).

It remains to be seen how the institution of Higher learning responds to the needs of societies. This is so because collaborations of LAMs with communities require the allocation of resources. A study conducted by Shipp (2016) states that institutions of higher learning invested less amount of money to offer professional qualification in LAMs. There are limited academics with qualifications in LAMS. The fact that more staff have less qualification in LAMS implied that staff in cultural heritage institutions has limited skills in neither library, archives, and museum management. It appeared that institutional offers qualifications in LAM on a short learning program.

Collaboration is key for an institution of higher learning to design an education curriculum. The study conducted by Fresa (2014) asked a question of what is required is that infrastructure experts from across countries and beyond establish collaborative links with the cultural community. The perceptions, interests, and experiences of scholars on information communication technology are a catalyst to determines inclusion of archival or artifacts material in teaching and learning (Gaffney, 2010).

LAMs created their domains through the power of shared practices and standards (Waibel and Erway 2009). This statement is alluded to by Klimaszewski (2015) who states that LAMS is important to increase cross-institutional collaboration. These collaborations increase access to information. Universities are to promote collaboration of the LAMs with a view of education curriculum design.

The literature reviewed outlined partnerships of organizations. The study conducted by Sirinides, fink, and DuBois (2017) and Zickuhr et al. (2013) indicates that the national government provides support for LAMs to collaborate with local communities on design educational programs. Mitchell and Rautenbach (2005) alluded that it is the responsibility of higher education institutions to engage with the community to promote teaching and learning. The success of collaboration of communities with higher education training in South Africa is dependent on budget allocation. This means that the national department is

to allocated resources for the development and training of staff. A study conducted by (Kelton, and Sraniero. (2018) indicates that partners' institutions committed financial, personnel, and facilities resources to an educational program and anticipated valuable outcomes in the form of exhibits and programs that aligned to the institutional missions.

The capacity of academic researchers and the institutional environment of the university is necessary to develop a community-university relationship for research (Page-Reeves, et al (2017).

Communities to visit national parks for entertainment and research purposes. This provides opportunities for the community to benefits from lifelong learning. Community engagement assists schools to serve the needs and values of the community; it can foster the growth of social networks that result in increased educational achievement (Reid and Howard, 2016).

A study conducted by Diaz (2014) indicates that cultural heritage institutions design education curriculum to assist students and educators on lifelong learning. Educators and students benefit from LAMs rather than learning from the formal curriculum established (Shipp, 2016). Contention has been that distinction need to be made between modes in which professionals gain knowledge and skills on heritage resources (Katuu, 2009). Continuing education is meant to be remedial after the bulk of the foundation has been placed.

Community organizations play a role to monitor reviewing of the curriculum by the department of education (Bringle and Hatcher, 2005). This means that the department of education is accountable to the community. Service-learning has implications on improving pedagogy, shaping research and scholarship on teaching and applied research, contributing to academic, civic, and development of students. The study conducted by Bringle and Hatcher (2005) stresses the converging evidence from multiple disciplinary perspectives on qualities of good learning environments. The study conducted by Gibson, Morris, and Cleeve (2007) mentioned the following as the benefit of collaboration:

- Attracting audiences and expanding the research in library, archives, and museum
- Improving public perceptions of museums and libraries as traditional staid institutions
- To promote cultural heritage and preservation
- Fostering of best practices from both institutions;
- Building and sharing physical resources such as space and materials
- Sharing policies for preservation and conservation of collections
- Sharing financial resources for cleaning, utility bills, security, ICT facilities, and Joint Licence purchasing, avoiding competitive bidding for the same funding
- Experiencing collaborative working
- Sharing expertise
- Sharing staff training costs.

Depth of understanding enhanced through learning processes contain active learning, frequent feedback from others such as service-learning coordinators, students, service providers that are provided in non-threatening ways.

Data Analysis

Verbatim was used as a form of analyzing data. Data were analyzed according to the objective of the study

LAM Role in Education Curriculum Development

20 Participants were asked as to whether LAMs play a role in curriculum development. The majority of participants (16) states that LAM does not contribute to curriculum development by starting the following.

"Education curriculum design is not linked to primary sources preserved by the National Park library, archives and museums".

"No interaction between the Department of Education and KR on curriculum development"

This data shows that the development of the education curriculum is not linked to KR. This means that SHKR resources did not contribute to education design and development. The author is of the view that this was caused by a lack of consultation between the department of education and the management of the National Park.

Few participants four (4) state that LAMs contribute to education curriculum development by stating the following.

"Most of the students research the parks. The research outputs inform curriculum development. The research conducted by students within the park provides a guideline on education transformation and exchange programs.

"Reviewed of education curriculum especially history subject" Reviewing education curriculum requires the use of SHKR resources. There is rich information preserved by LAMs which may be incorporated in designing education curriculum.

"Visits by students and academics to the National Park is part of field education or experiential training. Therefore, experience forms part of education development". Visits to LAMs formed an integral part of learning. This statement is alluded to by Usherwood, Wilson, and Bryson (2005) who indicate that LAMs perceived cultural heritage as valuable.

"Kruger National Park Scientists are mostly requested by the Department of Education and national and international agencies to facilitate training and workshops for students and academics on regular basis" Workshops for cultural heritage professionals resulted in insightful recommendations on how National Parks improve cultural heritage research in parks and increase cooperation with cultural heritage professionals as reflected in (SANParks annual report. 2018/2019) This is an indication of the indirect role of KR on education curriculum development.

"Educational system in South Africa is linked to primary sources stored and preserved neither in LAMs. This implied that KRS is considered during the design of curriculum".

"Introducing information communication technologies implies that academics and students may access KRS resources" KRS are to modernize their system to ensure that their heritage resources are made available online. This means that National Parks is to embark on digitisation projects. KRS are to select heritage resources for digitization purposes.

Collaboration

Twenty (20) participants were asked about the level of collaboration between the National Park with the Department of Education. The majority of respondents (16) answers were as follows:

"There was no formal collaboration entered between the Department of education and National Park on education curriculum design"

"The memorandum of understanding entered between National Parks with South Africa universities are mainly on research field".

Based on the results, it appeared lack of formal partnership in place between the departments of education (Basic and Higher Education, training) and National park on curriculum design.

Twenty (20) participants were also asked about the level of collaboration of HR with various communities. The majority of participants of seventeen (17) states that "National Park collaborates with local communities to offer short learning courses in tourism and heritage management of which KR is the pillar to educate communities on LAMs.

"Outreach and awareness program adopted by the park to raise values of materials preserved by libraries, archives, and museums as significance".

An informal form of education offered by the KR is to be integrated into South Africa's education systems. It is the view of the author that Informal education is supposed to form part of the South African education curriculum. This finding is contrary to the research conducted by Ngoepe and Ngulube (2011) who indicates that most communities do have not to visit libraries, archives, and museums to conduct research. The National Park initiated a project to promote communities to visit the park. Outreach training and awareness were aimed at sharing resources and knowledge with communities. For example, an initiative of free park entry, where local communities visit a national park without paying entry fees. School groups are encouraged to visit national parks for educational purposes.

Few participants fifteen (15) reported that collaboration with communities is part of their organization's vision to connect with societies to develop informal learning. The recognition of prior learning is central to the notion of life-long learning and, by providing alternative access to higher education, will play a role in the redress of past inequities. Informal learning is a pedagogical approach that includes the translation of informal and nonformal bodies of knowledge and skills into their formal equivalents. Lifelong learning may be used to grant access, exemption, or advanced standing in a qualification.

The vision of National Parks is based on a system of sustainable National parks reconnecting and inspiring society. The vision of the national park is in line with South African University's mandate to connect with the community as a form of community engagement.

Twenty (20) participants were asked about the formal training on LAM in South Africa. Many participants 18 respondents were as follows:

"The University of Pretoria, Sol Plaatje University offers a qualification in archives, museum, and heritage sciences.

"The University of South Africa, University of Witwatersrand offered the only qualification in archives management."

"The University of Free State, University of Cape Town, University of Western Cape, University of Limpopo, Durban University of Technology offers a qualification in Library and Information Science

"Education which was offered was informal training and awareness which was not linked to the South Africa education Curriculum".

This result shows that most of the South African universities offered qualifications on LAMs. The fact that many universities in South Africa offered qualifications in libraries, archives, and museums shows a need to train heritage professionals. However, it seems that no South African universities offering combined modules or courses covering both libraries, archives, and museums. This is an opportunity for the university to collaborate with LAMS to design an education curriculum. Collaboration of National Park and LAMs may benefit students to conduct in-service learning. However, the research found a lack of collaboration between institutions of higher learning and KR on education curriculum design. The researcher found that there was an informal partnership with institutions of higher learning on education curriculum design. The research found that National Park entered into service level agreements

with other universities such as the University of Pretoria, University of Witwatersrand, University of Mpumalanga, University of Kwazulu Natal. However, such a service level agreement does not include educational materials design.

The few participants two (2) states that qualifications on LAMs are offered by the National Park

"Only informal training on LAMs offered"

"Most of the courses offered by the National Park are not credited"

"Informal courses are offered by the National park because of lack of collaborator on LAM courses".

"It seems that institutions of higher learning and training were not interested to collaborate with the National Park to design educational materials".

It appears that there was a lack of understanding of LAMs on education curriculum design. LAMs were used for informal curriculum design. The short learning program conducted in the National Parks is done to empower local communities.

FINDINGS

The study found that limited collaboration on education curriculum design by an institution of higher learning and LAMs of the National Park was done. The South Africa Department of education did not use LAMs to design education curriculum. This may be because of a lack of collaboration between the Department of Education and the National Park. The author is of the view that continuous engagement should be done to ensure the design of the education curriculum. The fact that LAMs were not used on education curriculum design implies that LAMs were not sources of education curriculum design. The author is of the view that LAMs contributed to the development and implementation of an inclusive education system.

The researcher found that most South African universities offered qualifications in libraries, information, archives, and museums Studies. However, what is lacking is to establish formal agreements with the National Park to use KR resources to use their collection to design educational materials for teaching and learning purposes. This is despite other service level agreements entered between parks and South African universities.

The researcher also found that museums designed informal education curriculum as a form of informal learning. Informal training conducted by archivists and museologists and librarians enabled communities to understand subjects such as archaeology, anthropology, history, an ecosystem of the park, and other activities related to park history. Working on an interdisciplinary collaborative team showed students the value that LAM could address environmental change. The researcher argued that it was essential to facilitate LAMs materials created online.

Implications for Libraries, Archives, ond Museums on Education Curriculum Design

It appears that most records preserved at KR are records with confidential and secrecy information. Most of the collections preserved are still under embargo. Some of the collections require ethical clearance to be used. Furthermore, most heritage materials are not yet fully arranged and described in terms of international standards. This means that before heritage materials are considered as part of education.

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RECOMMENDATION

- Policymakers need a better understanding of the significance of libraries, archives, museums, and libraries. This assist to create support for personnel development and budgets for equipment and facilities
- Collaboration between the South Africa Basic and Higher education, science, and Technology with LAMs is to be encouraged to develop an educational toolkit. The University uses lifelong Learning as necessary tools to widen access with success, to achieve inclusion, and to overcome barriers to access in higher education. This may play significant roles in promoting lifelong learning and in redressing inequities by providing alternative routes into higher education.
- LAM education is underdeveloped in South Africa. There is a need for the National Parks to fully collaborated with South African universities offering libraries, archives, and museums courses or modules. Curriculum design to be based on international standards and criteria for the acceptable learning level agreed upon and made public. The concern is the lack of recognition of LAMs value to the community as alluded to by (Lowry 2017).
- All people involved in curriculum design should pursue and receive adequate training and continuing professional development for the functions they perform.

AREAS OF FURTHER STUDIES

A further study can be conducted to develop a framework of LAMs towards education in South Africa

CONCLUSION

The finding of this case study underpins concepts and outcomes described in academic discourse on the relationship between LAMS and institutions of higher learning. The results of empirical research allow the researcher to conclude that designing an education curriculum requires the collaboration of libraries, museums, and archives and the ministry of Basic and Higher Education, Training, Science, and Technology. The role of archives, museums, and libraries identified through educational materials design needs to be clear. The priorities of South Africa Higher Education programs provide space for the universities to use the library, archives, and museum materials to design education curriculum. It is hoped that the lesson learned from the KR center would be useful to design educational toolkits for primary, secondary, and tertiary institutions in South Africa and other parts of the world. Partnerships in the context of developing teaching materials and research need to be problematized and not assumed as appropriate mechanisms for development. the education curriculum is dependent on higher education institutions to develop their capabilities to partners to secure the future of successful open learning within South Africa. The National Parks to remain relevant is essential to ensure or consider the effective use of social media platforms of using social media platforms to enable various users to access archival materials to design their collections., this case study of the Kruger National Park may serve as an education model to develop a curriculum for both primary and secondary school in South Africa.

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KEY TERMS AND DEFINITIONS

Archives: This is a record with a historical, cultural, and scientific value that needs to be preserved for permanent preservation.

Curriculum: This is course design for community or studies as a form of learning outcomes.

Developed Countries: These are countries that advance in economy and information communication technology.

Heritages: These are objects with cultural, historical, and social significance.

National Park: It is the largest game reserve in Africa.

Library, Museum, and Archives Collaboration: The cooperation between a library and a museum possibly involve other partners.

Public Universities: These are twenty-six public universities of South Africa.

Recognition of Prior Learning: This is a process of recognizing non-formal learning and informal skills. Skills and experiences are recognized as part of receiving credit and recognized qualifications.

Resources: These are materials preserved by neither libraries, archives, and museums.

Knowledge Resource (KR): It is the resource center consists of a library, archives, and museum.

Chapter 13
Significance of Digitization of the Cultural Heritage:
In the Context of Museums, Archives, and Libraries

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ABSTRACT

The digitization of cultural heritage in museums, archives, and libraries is the most important aspect of the digital era. The preservation of cultural heritage is the most important function of the museums, archives, and libraries, so that it can be transmitted to the future generation. The digital materials gathered for multiple storage systems including offsite storage, cloud storage, and so on are necessary to save it from the disasters like floods, fire, earthquakes, tsunami, natural aging, and other factors of deterioration. Digitization is imperative for the modernization and application of all types of technological advancements in various institutions. There are numerous software, hardware, tools, and techniques available for digitization which are described in detail as follows. The information about digitization has been compiled by literature survey and details of the same have been given in the references.

INTRODUCTION

Cultural heritage is a legacy inherited from the past generation and passed on tangible or intangible forms. These valuable heritage materials have been preserved in many places such as museums, archives, libraries, and other repositories which are accessible to the public for ages to come. The conservation and preservation of heritage materials can be done in two ways such as conventionally and digitally. Digitization is the process of converting conventional information into digital format with the aids of

various software and hardware interventions. The digitization of heritage materials is crucial for preserving and conserving various materials housed in museums, archives, libraries, and other institutions to protect future generations. Nevertheless, in this modern digital era, we have cutting-edge technology to make our survival much easier. As a result of being in a severe worldwide lockdown due to the global Coronavirus pandemic in 2020, the museum sector was among the most affected. Yet, digital technology offered countless opportunities via the internet to engage with the public and enable collaboration between the culture and education. This development can bring benefits like stimulating critical thinking in prominent institutions like museums, archives, and libraries and embrace their fundamental role as open, inclusive, and democratic way by incorporating technologies. With the help of information and telecommunication technology, one can communicate even though people are millions of miles away from each other. Digitization not only reduces people's difficulties accessing information but also saves valuable time. For instance, in the education sector, digital resources have made education easier, such as the internet, extranet, online teaching, and virtual libraries, particularly during the recent pandemic situation. However, still, some places where digital technologies are not being fully utilized. Therefore, digital literacy is sensitized and promoted not only among educated persons but also in the general public because its importance will increase day by day.

It is impossible to predict the future or revisit the past, but we can feel the legacy of the past through information and evidence that has been passed down. Whether the information is thousands of years old or about contemporary cultural and natural heritage, it needs some medium to reach us. That media may be organic materials like paper, parchment, leather, textile, or inorganic items like stone, metal, terracotta, and mixed artifacts like paintings. Now, museums, archives, and libraries play an important role in preserving information and heritage materials through digitization. However, we cannot ensure that objects in museums or manuscripts in archives and documents of libraries would be completely safe in the present storage condition. We must not forget that, while on the one hand, there are beautiful and captivating views of this nature, on the other hand, there are terrible disasters which we keep seeing in the form of fire, flood, earthquake, lightning, storms, tsunami which frequently sprang out of human's control. Therefore museums, archives, and libraries that are supposed to preserve valuable and informative documents, manuscripts, and cultural objects may be affected by these devastating disasters in the future also. According to a United Nations report, natural disasters now occur three times more often than fifty years ago. Moreover, trillions of objects housed in museums or documents kept in archives and libraries pose the biggest threat of being damaged due to various factors of degradation such as physical, chemical, and biological phenomenon. Physical factors like temperature, humidity, dust, dirt, atmospheric pollution enhance natural aging which keeps on damaging the cultural property. Besides, biological agencies like microbes, fungi, insects, and rodents are responsible for bio-deterioration, which can only be avoided by digital preservation. Digitization helps not only in the preservation of cultural heritage but also assist in easy access to the public. The preservation of cultural heritage must be done in both forms, digital as well as conventional methods. In this modern era, the invention of the computer has revolutionized our lives, and technology is growing at a tremendous rate. There are many hardware and software which are available to digitize manuscripts, books, photographs, images of objects, and many other valuable heritage materials. The significance of digitization we experienced during the lockdown period due to COVID-19 was most prominent when people could not go from one place to another while libraries, archives, museums, and other institutions were closed down. Many activities were being done online via the internet in a difficult situation. The digitization proved very useful and the digitized materials provided to the students who required them urgently to prepare for examinations. The cultural

and education sectors have been most affected by the global pandemic, but it also brought forward new changes and innovations. It is the need of the hour to explore new approaches to cultural sectors such as online exhibitions, sharing digital materials, new partnerships between similar institutions with innovative ideas. For digitization, web pages can be created on World Wide Web, and data such as text, images, audio, and video clips can be up-loaded with hyperlinks to other files. Many digital means such as course management systems and digital learning environments may also be established for users. All digital materials may be available on web pages with protocol in the form of Portable Document File, Wikipedia entries, video files, 3D animation, and other methods. In the case of libraries, users can be connected through social networking like Local Area Network, Metropolitan Area Network, and so on. Furthermore, in any organization, systems can be connected through a common interface for making communication easier.

The digitized materials may be accessible to customers easily so that they are not hindered by access or availability issues. The material in digital forms such as manuscripts, images are not only used for spreading education but can also be protected from vandalism and mishandling because touching documents repeatedly may cause damages. The digitized material can store in internal storage and external storage such as magnetic disk, optical disk, flash memory, etc. The data should be stored in different locations because sometimes files may get corrupted and data may get lost by natural disasters or other technical problems. Therefore, data may be available in different storage areas including cloud storage so that one can recover the data whenever required even after the original resource may be destroyed by the natural disaster at one place (Abduraheem, 2009). Conservation of heritage materials not only aims to create and maintain the best suitable environment for materials as far as possible including the storage of digital materials of artifacts but also prevent any types of threat and enable to sustain as long as possible. Thus, the pool of digital heritage gathered for offsite storage assist to protect them from natural aging, natural disasters, and other factors responsible for deterioration.

The Digital Libraries, Digital Museums, Digital Archives are the new features available on the internet and the digital manuscripts and artifacts are main contents of the same and it is supposed to be increased many folds in future. The need for improvement of the data storage and processing of the technical conditions on one side and the demand for greater information on the other side made it essential to introduce computer processing of museum materials (Ban,1980; Bezeczky,1980; Eri,1971). In 1982 the Canadian Heritage Information Network initiated its new operating system called PARIS (Light R. B et al.1986). Artificial intelligence is the branch of computer science that creates intelligence in the machine so that life can be made better with the help of this technique. Many devices have been developed which operate by artificial intelligence based on voice recognition, face recognition such as Alexa, Siri, etc. Various tools and techniques for digital preservation of cultural heritage such as Technological Preservation, Migration of Digital Data, Change Media, Change Format, Emulation, Backwards Compatibilities, Encapsulation, Converting to stable analog format, Encryption, Multiple storage systems, Offsite storage system, Cloud storage, Optical Character Recognition, Portable Network Graphics, Voice over internet protocol, Automatic Speech Recognition, Copyright, Dynamic Microphone, Graphical User Interface, Integrated Learning System, QR Code, Virtual Reality, Augment Reality, and so on described as follows.

TOOLS AND TECHNIQUES USED FOR THE DIGITIZATION OF CULTURAL HERITAGE AND ADVANCED COMMUNICATION TECHNOLOGY

Digitization of Manuscripts

The first and foremost step of digitization of the manuscript is to take a picture of the documents from all dimensions. When taking a picture, keep in mind that words written on the manuscript should not be cropped and all the information should be included in the picture. If there is a special figure and symbol in the documents or manuscripts, it should be highlighted after taking the images and it should be resizing and renaming which are suitable to the materials. In the process of digitization, one should use a high-resolution camera that combines with more pixels, so that clear images can be taken from the documents.

The next step is to fill in the information which is related to the manuscript in the documentation sheet. The documentation sheet is the format that is used to fill in the information which is related to the document. In the documentation sheet, many columns are made such as the dimension of paper or manuscript, name of the written language on manuscript, provenance, owner, etc. All the information that is related to the manuscript should be filled in a documentation sheet with photographs and should be uploaded on the websites of organizations or internet sites and the purpose of security, data has to be stored in many places including offsite storage. The digital format of documents should be uploaded on the website in such a way that the list of collections should be uploaded on the home page of the website and these links hypertext to another page, on which list of the collection opens individually and detailed information of the particular document is uploaded on the particular link so that users can easily get or read the information which is stored in PDF and word format.

Electronic Formation of the Museum Collection

As we know that museum contains a lot of collections in the form of tangible as well as intangible forms. According to ICOM Definition (2007) of Museum **"A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purpose of education, study and enjoyment "**

It can be seen in the definition that the functions of museums are not only conservation or storage of cultural heritage but also to disseminate information which is related to the preserved and conserved collection in museums. In different types of museums, various kinds of collections are preserved such as Archaeological collection, ethnographical collection, natural history collection, science, and technological collection, etc. The digitization of such collection can be done in such a way, that after taking photographs of the objects or specimens, it should be pasted on the documentation sheets. The documentation sheets are different for various kinds of collections. If the archaeological object is to be converted in electronic form, then various documentation cards such as Accession sheet, Index sheet, Catalogue sheet, Sectional sheet, etc. should be prepared. All the related information about archaeological objects such as Mode of acquisition, Material type, Dimension, Provenance, etc. should be filled in the sectional sheet, and detailed information about the object such as Description, Material, and method of the object, uses of an object, and texture of the object, etc. should be documented in the sectional register. In the case of natural history collection, some more information has to be documented such as Phylum, Class, Order,

Family, Scientific name, etc. in the sectional sheet with photographs of the specimens should be uploaded on the websites in PDF format and word format, so that users can easily download the information.

Digital Library

One of the most important uses of digitization can be applied in the form of the digital library. The digital library is the online resource in which collections are stored in digital format. It includes text, still images, audio, video, digital documents, etc. which are accessible through the internet and computer system. Digital libraries contain a large number of valuable resources that can be used by all kinds of users and material on this platform will not only be inexpensive but also quickly available. The information technology and telecommunication system bridging the gap between repositories and the potential users of various communities (Abduraheem, 2009). A website can be created, on which digitized books, journals, articles, text documents, etc. can be uploaded. Many countries have been taken digital initiatives and utilized the same such as e-Learning, virtual library, etc. by which, links of digital materials can be shared to the users who are residing in distant places.

Digitization of Intangible Cultural Heritage

A cultural heritage which inherited from the past and it may be tangible or Intangible. According to UNESCO Convention (2003). The "Intangible cultural heritage" means the practices, representations, expressions, knowledge, skills as well as the instruments, objects, artifacts, and cultural spaces associated therewith that communities, groups, and in some cases, individuals recognize as part of their cultural heritage. The intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature, their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. For the purpose of this Convention, consideration will be given solely to such intangible cultural heritage as compatible with existing international human rights instruments, as well as with the requirements of mutual respect among communities, groups, and individuals, and of sustainable development.

As much as it is necessary to preserve the Tangible Cultural Heritage, it is equally important to preserve Intangible Cultural Heritage, because it is moving toward extinction. Intangible Cultural heritage has several domains and each of which has a different significance. Documentation is the most important step for the safeguarding of Intangible Cultural Heritage. In the documentation, all the relevant information will be recorded manually and digitally and uploaded to the websites. Several museums have been engaged in the digitization of intangible heritage across the world after the UNESCO convention on intangible heritage.

Artificial Intelligence

The term "Artificial Intelligence" (AI) is often used to describe machines that mimic "cognitive" functions that associate with the human mind, such as "learning" and "problem-solving". As machines become increasingly capable to perform many tasks considered to require "intelligence" demonstrated by machines, unlike the natural intelligence displayed by humans and animals, which involves consciousness and emotionality. The distinction between the former and the latter categories is often revealed by the

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acronym chosen. 'Strong' AI is usually labeled as artificial general intelligence (AGI) while attempts to emulate 'natural' intelligence have been called artificial biological intelligence (ABI). It further described the field as the study of "intelligent agents", any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals colloquially. Modern machine capabilities generally classified as Artificial Intelligence include successfully understanding human speech competing at the highest level in strategic game systems (such as chess and Go), and also imperfect-information games like poker, self-driving cars, intelligent routing in content delivery network, military simulations, and so on. Artificial intelligence was founded as an academic discipline in 1955 and much research has been conducted and applied in many fields including museums.

The traditional goals of AI research include reasoning, knowledge representation, planning, learning, natural language processing, perception and the ability to move and manipulate objects. AGI is among the field's long-term goals Approaches include statistical methods, computational intelligence, and traditional symbolic AI. Many tools have been used in AI, including versions of search and mathematical optimization, artificial neural networks, and methods based on statistics, probability, and economics. The Artificial Intelligence field draws upon computer science, information, engineering, mathematics, psychology, linguistics, philosophy, and many other fields. The field was founded on the assumption that human intelligence "can be so precisely described that a machine can be made to simulate it". This raises philosophical arguments about the mind and the ethics of creating artificial beings endowed with human-like intelligence.

These issues have been explored by myth, fiction, and philosophy since some people also consider AI to be a danger to humanity if it progresses unabated. Others believe that AI, unlike previous technological revolutions, will create a risk of mass unemployment. In the twenty-first century, AI techniques have experienced a resurgence following concurrent advances in computer power, large amounts of data, and theoretical understanding. AI techniques have become an essential part of the technology in the industry, helping to solve many challenging problems in computer science, software engineering, and operation research. AI is the powerful technology that can be used further improve museum services such as accessibility, inclusion, visitor evaluation, disseminate information, monitoring the museum environment, interactive exhibition, virtual tour, Augment reality, etc. *(Artificial Intelligence, n.d.)*

Augmented Reality

Augmented Reality (AR) is an interactive experience of a real-world environment where the objects that reside in the real world are enhanced by computer-generated perceptual information across modalities including visual, auditory, hepatic, olfactory. and somatosensory. AR can be defined as a system that incorporates three basic features such as the combination of the real and virtual world, real-time interaction, and accurate 3D registration of virtual and real objects. The overlaid sensory information can be constructive to masking the natural environment. This experience is seamlessly interwoven with the physical world that is perceived as an immersive aspect of the real environment. In this way, augmented reality alters one's ongoing perception of a real-world environment, whereas virtual reality completely replaces the user's real-world environment with a simulated one. Augment reality is related to two largely synonymous terms: mixed reality and computer-mediated reality.

Augment reality is used to enhance natural environments or situations and offer perceptually enriched experiences. With the help of advanced AR technologies adding computer vision, incorporating AR cameras into smartphone applications, and object recognition, the information about the surrounding

real world of the user becomes interactive and digitally manipulated. Information about the environment and its objects is overlaid in the real world. Augment reality has a lot of potential in the gathering and sharing of tacit knowledge. In museums, AR can be used for the visitors and when AR devices were used by users, they can feel the simulated environment of displayed exhibits and interactive diorama (*Augmented Reality, n.d.*).

Virtual Reality

Virtual reality (VR) is a simulated experience that can be similar to or completely different from the real world. Currently, standard virtual reality systems use either virtual reality headsets or multi-projected environments to generate realistic images, sounds, and other sensations that simulate a user's physical presence in a virtual environment. A person using virtual reality equipment can look around the artificial world, move around in it, and interact with virtual features or items. The effect is commonly created by VR headsets consisting of a head-mounted display with a small screen in front of the eyes, but can also be created through specially designed rooms with multiple large screens. Virtual reality typically incorporates auditory and video feedback, but may also allow other types of sensory and force feedback through haptic technology.

Simulation

A simulation is the imitation of the operation of a real-world process or system over time. Simulations require the use of models and the model represents the key characteristics or behaviors of the selected system or process, whereas the simulation represents the evolution of the model over time. Often, computers are used to execute the simulation. Key issues in modeling and simulation include the acquisition of valid sources of information about the relevant selection of key characteristics behaviors used to build the model and the use of simplifying approximations and assumptions within the model, and fidelity and validity of the simulation outcomes. Procedures and protocols for model verification and validation are an ongoing field of academic study, refinement, research, and development in simulations technology or practice, particularly in the work of computer simulation.

Roboguide

Robotics is the intersection of science, engineering that is based on technology an interdisciplinary field that integrates computer science and engineering. The goal of robotics is to design machines that can help and assist human beings.

Robotics integrates fields of mechanical engineering, electrical engineering, information technology, electronics, bioengineering, computer engineering, and many other types of engineering such as control engineering, software engineering, mathematics, among others. Robots can take on any form but some are made to resemble humans in appearance like Roboguides used in museums. This is said to help in the acceptance of a robot in certain replicative behaviors usually performed by people. Such robots attempt to replicate walking, lifting, speech, cognition, or any other human activity. Many of today's robots are inspired by nature, contributing to the field of bio-inspired robotics. Certain robots require user input to operate while other robots function autonomously. The concept of creating robots that can operate autonomously dates back to classical times, but research into the functionality and potential uses

of robots did not grow substantially until the 20th century. Throughout history, it has been frequently assumed by various scholars, inventors, engineers, and technicians that robots will one day be able to mimic human behavior and manage tasks in a human-like fashion more effectively. Humanoid robots are some of the recent inventions which can be used in museums as Robo guides. Ramona is an animated avatar of Robo guide which speaks in a human-like fashion and answers any question put up to them. Today, robotics is a rapidly growing field, as technological advances continue; researching, designing, and building new robots serve various purposes. (*Robotics, n.d.*)

Optical Character Recognition

Optical Character Recognition (OCR) is the electronic or mechanical conversion of images of typed, hand-written, or printed text into machine-encoded text, whether from a scanned document, a photo of a document, a scene photo, or from subtitle text superimposed on an image. It is widely used as a form of data entry from printed paper data, printouts of static data, or any suitable documentation. It is a common method of digitizing printed texts so that they can be electronically edited, searched, stored more compactly, displayed online, and used in machine processes such as cognitive computing, machine translation, extracted text to speech, key data, and text mining. It is a field of research in pattern recognition, artificial intelligence, and computer vision. Early versions needed to be trained with images of each character and worked on one font at a time. Advanced systems capable of producing a high degree of recognition accuracy for most fonts are now common, and with support for a variety of digital image file format inputs. Some systems are capable of reproducing formatted output that closely approximates the original page including images, columns, and other non-textual components. OCR is used in digitization for converting hard files into soft copies.

Quick Response Code

A Quick Response Code (QRC) is a type of matrix bar code or the two-dimensional barcode invented in 1994 by the Japanese automotive company Denso Wave. A barcode is a machine-readable optical label that contains information about the item to which it is attached. In practice, QR codes often contain data for a locator, identifier, or tracker that points to a website or application. A QR code uses four standardized encoding modes such as numeric, alphanumeric, byte or binary, and kanji to store data efficiently. The Quick Response system became popular outside the automotive industry due to its fast readability and greater storage capacity compared to standard UPC barcodes. Applications include product tracking, item identification, time tracking, document management, and general marketing. A QR code consists of black squares arranged in a square grid on a white background, which can be read by an imaging device such as a camera, and processed using Reed–Solomon error correction until the image can be appropriately interpreted. The required data is then extracted from patterns that are present in both horizontal and vertical components of the image. From the museum's point of view, a QR code is the better medium to give more information in a short time. It can be used as a label, because, any visitor or user can capture it by Digital Assistant Device and can get the relevant information about materials, on which, QR is pasted.

Haptic Technology

Haptic technology, also known as kinaesthetic communication or 3D touch, refers to any technology that can create an experience of touch by applying forces, vibrations, or motions to the user. These technologies can be used to create virtual objects in a computer simulation, control virtual objects, and enhance the remote control of machines and devices like telerobotics. Haptic devices may incorporate tactile sensors that measure forces exerted by the user on the interface. The word *haptic*, from the Greek: means "tactile, pertaining to the sense of touch". Simple haptic devices are common in the form of game controllers, joysticks, and steering wheels. Haptic technology facilitates the investigation of how the human sense of touch works by allowing the creation of controlled haptic virtual objects. It can be used in museums to enable touch and feel the virtual objects of distant places. This technology allows computer users to use their sense of touch to feel virtual objects with a high degree of realism (Giachritisis C et. al. 2008). Most researchers distinguish three sensory systems related to the sense of touch in humans: cutaneous, kinaesthetic, and haptic. All perceptions mediated by cutaneous and kinaesthetic sensibility are referred to as tactual perception. The sense of touch may be classified as passive and active and the term "haptic" is often associated with active touch to communicate or recognize objects.

Emulation

In computing, an emulator is a hardware or software that enables one computer system called the *host* to behave like another computer system called the *guest*. An emulator typically enables the host system to run software or use peripheral devices designed for the guest system. Emulation refers to creating new software that mimics the operation of older hardware or software to reproduce its performance. Thus not only physical presence and content preserved, but digital objects could display original features and functionality available with the older software (Marilyn,2006). Emulation is one strategy in pursuit of digital preservation and combating obsolescence.

Migration of Digital Information

Refreshing digital information by copying it from one medium to another medium and possibly a complex set of emulators describe two distinct points on a continuum of approaches to preserve. The integrity of digital objects and to retain the ability for the client to retrieve display otherwise use them in face of constantly changing technologies may be difficult.

Change Media

Transfer digital materials from less stable to more stable media. For instance, migrate data from CD to more stable external hard disc because CD easily become corrupt due to scratches and fungus attack.

Change Format

The migration strategy for digital archives will large complex and diverse collection of digital materials into migration from the great multiplicity of formats use to create digital materials in a smaller and

more manageable manner. The number of standards that can still encode the complexity of structure and form of the original.

Adherence to Standard

Adhering to stable and widely adopted open standards when creating and archiving digital resources there are not tied to specific hardware or software platforms and thus can alter inaccessibility of digital resources due to technological obsolescence.

Backward Compatibilities

Being able to retain accessibility to digital resources following an upgrade to new software and operating system is necessary.

Converting to Stable Analog Format

converting certain valuable digital resources to stable analog mediums such as permanent paper or microfilm or more recently Nickle disk readable by electron microscope. This cannot be recommended as more than a pragmatic interim strategy for a small category of digital materials, pending the development of more appropriate digital preservation strategies.

Disaster Preparedness

Once natural disasters like tsunami, floods, the fire happened it is very difficult to save our valuable heritage materials from devastating damages. Therefore disaster preparedness is the only way to safeguard our heritage materials include the digitization of cultural heritage and offsite storage including cloud storage (Abdu, 2009).

Backup Methods

Regular backup methods are imperative to protect the data from any kind of loss. It also prevents loss of data from the computer even the network system or server crashes. The most common backup method for an individual to use is the inter mental backup (Kahn Mariam B, 2004) only the files that have changed are copied into some type of removable storage medium or remote data storage. Some automated backup programs also backup only what has been changed since the last time.

Data Mirroring

Data mirroring or replication includes synchronizing two or more data servers with the same information. Several types of replications can be employed at a time and the first is to backup or replicate on a second drive in the same cabinet. This would ensure against the physical loss of data or damage to the original drive the second type of replication would be to have another driver or server in a different machine. The third and highest level of replication of digital materials would be stored across the geographical areas such as Regional level, National level, or international level repositories. The remote backup server

providers like web storage, cloud storage, optical lines would be stored data at remote locations to save the data from natural disasters. Thus the digital images of museums objects and manuscripts saved would be useful for reconstruction of the past by remodeling the objects if the original objects damage or perishes by natural disasters in one region or any country.

Virtual Museum

The project of virtual museum commenced in 2001 to develop a virtual representation of museum objects online. It involves, three major phases data gathering, data processing, and interface development, evaluation, and dissemination of information assuming that one of the challenges of the virtual museum is to translate the essential aspects of interaction in an online environment where the online audience may have a different experience. There are the following standards and guidelines that may be adopted for digitization (Bernadette G. 2004) to ensure the long-term viability of the digital images including the materials can be handled carefully and curators are discouraged from unnecessary contact and exposure with it. Moreover, capture an initial high-resolution digital master file as an uncompressed raster image is essential. It is necessary to retain the archiving materials on suitable media in a secure managed storage environment for future reference and re-use.

CONCLUSION

Cultural heritage is a legacy that is inherited from the past generation and it should be preserved and passed on to future generations. The conventional methods of storing information in museums, libraries, archives in the form of objects, images, books, manuscripts were not easily accessible to the common people whereas dissemination of digitized materials through the internet become accessible to the public easily. Digital heritage materials are protected in many places in various institutions and they are playing a very important role in preserving and disseminating the information. Thus the digital images of objects would be useful for the reconstruction of the past to restore the objects if original objects get perished by disasters in one region. The highest level of replication of digital materials would be stored across geographical areas such as regional, national, international level repositories. The remote backup server providers like web storage cloud storage, optical lines would be stored data at remote locations could save data from disasters. Technological preservation, migration of data, change media, backward compatibilities are necessary to combat the obsolescence technology. Protecting old data has multifarious problems that require the custodians to be proactive to preserve it. The data back up also necessary for swift recovery if any problems of software or hardware occur. If one does not plan for the future with disaster response and preservation program may lose the valuable cultural heritage forever. Digitization is imperative for the modernization and application of all types of technological advancements in various institutions. There are many tools and techniques are available for the digital preservation and dissemination of information and the concerned professionals should be familiarized with them to fulfill their accomplishments. There is more scope to research in the field of digitization and interpretation of information through various media.

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Chapter 14

Digital Literacy Niche in Academia:
Endeavors and Digital Solutions for Young Smart Citizens

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ABSTRACT

With the awareness and proliferation of technology, the smart approach is possible to build a learning system or a smart city. The study aims to present the involvement of digital literacy in academics, making youth smart citizens, and assessing the continuous efforts at different levels. The study highlighted the mechanisms adopted by the libraries, such as training and other programmes, to enhance the digital literacy of the citizens. The chapter spotlighted the inclusion of digital literacy in academics, and with the adoption of digital solutions, young learners can become smart citizens. It also throws light on the impact of digital literacy during COVID-19 and digital literacy activities at JNU Central Library. A glimpse of the practices and measures adopted by the academic libraries to enrich the youth to make them smart citizens is provided, and a case example of an academic library (i.e., Jawaharlal Nehru University [JNU] Central Library) is considered for the study. Digital literacy has become an integral part of the youths' lives, and it supplements in making youth smart citizens would lead to smart city development.

INTRODUCTION

Digital literacy means that one should have the skills to fit in the environment and work in a society where communication and information are accessed through digital technologies. The information communicated with the digital technologies' adoption reached the users faster, and the information

was timely. Digital literacy requires essential skills to adjust to the existing scenario where digitized information is preferred to access.

Digital literacies ultimately combine information and media literacy. In the digital literacy framework, it has been observed that Information literacy is an essential component. The assessment and usage of digital content in the highly disorganized web-based information scenario depends on the digital-savvy practices related to the published content beyond the libraries. Contrary to this, media literacy has not created a significant place in the "literacy publications" as a shared focus on scholarly materials (Alexander, 2017).

According to Martin (2008), digital literacy involves carrying out digital actions successfully within work, broader than ICT literacy, and the ability to be aware of oneself as a digitally literate person.

Digital literacy can be promoted by the following:

- First, learning and collaborating are done using social media platforms.
- Guidance may be provided to avoid plagiarism.
- Assist the students in maintaining the distractions caused by the undesired pop-ups.
- Learn to manage the online identity.

Long ago, Tornero (2004) described the four dimensions of digital literacy: operational, semiotic, cultural, and civic. Martin and Grudziecki (2006) recognized varying levels of digital literacy: "digital competence (skills, concepts, approaches, and attitudes), digital usage (application of digital competence within specific professional or domain contexts), and digital transformation (achieved when the digital usages which have been developed enable innovation and creativity, and stimulate significant change within the professional or knowledge domain)" (p.255).

The European Framework for Digital Literacy (EFDL), a product of the DigEuLit project and initiated to recognize the significance of digital literacy, defines digital literacy as follows:

Digital literacy is the awareness, attitude, and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others in the context of specific life situations, to enable constructive social action; and to reflect upon this process. (Martin, 2006, p.155)

The American Library Association Office for Information Technology Policy (2013) has recommended developing DL competencies of "staff as a priority for local libraries and as part of their more comprehensive mission" (p. 2).

The objectives of the chapter are to: discern the insights into academia, and digital literacy influx, assess the ongoing efforts at various levels for digital citizens in the recent past, how libraries are considered a pivotal force in augmenting digital literacy, and share the example of JNU Library in exchanging the ideas and preparation of digital citizens.

Significance of the Chapter

The efforts in the chapter have been in the direction of highlighting the involvement of digital literacy in academia and the digital solutions for young learners towards becoming smart citizens. It also focuses

upon the multifarious developments that took place in academics and also its importance during CO-VID-19. The areas affected due to the pandemic employed digital methods to serve the country, leading to society's development.

Importance of the Chapter

The chapter has been able to encapsulate various theoretical aspects and current practices related to digital mechanisms. These mechanisms have provided civic solutions for young citizens, whereas the libraries and other learning centres have been engaged in the proliferation of information. The encouragement from the technological advances and collaboration in civic society components have tried to encompass the roadmap for becoming young, smart citizens. The present chapter provides diverse approaches to comprehend the issues and resolution towards effective civic engagement.

BACKGROUND

Leaning (2019) explored information literacy and media literacy and proposed a future digital literacy direction. The article argued that both media and information literacy have deficiencies. It is asserted in the article that integrating and strategically revisiting both approaches offers a digitally aware and critically nuanced direction for digital literacy. According to Badke (2011), despite several programs being organized on information literacy in higher education, the academic administrators' concept of information literacy remains hidden. He also mentioned that the new information age requires overcoming the barriers and information literacy takes a prominent place. Webber and Johnston (2006), in a British study of critical stakeholders within universities, found the slightest understanding of information literacy among academic administrators. No administrative committee in Webber and Johnson's study believed that its mandate included the promotion of information literacy and observed several reasons for the invisibility of information literacy.

The place of information literacy in the higher education curriculum has taken an example of "a credit-bearing information literacy class" by proposing models (Johnston and Webber, 2003) for the information literate student and the information literate university. The past suggests a viewpoint of young people for the use of digital technology as negotiated social and literate practice rather than stressing the limitations of school and home spaces and literacy practices, Bulfin and North (2007) argued that young people's practices that develop around the use of digital technologies flow across these spaces, making simple distinctions (Huerta and Sandoval-Almazán, 2007) and binaries about use in each domain problematic. The 'dialogic negotiation' and Bourdieu's notion of *habitus* suggest that texts, meanings, and practices do not arise entirely from a single domain but are outlined from a vast experience.

Also, another example is a European workshop on information literacy (Conclusions and Recommendations, 2006 in Badke, 2011), that concluded: "One of the main reasons for not addressing the information literacy problem is the insufficient understanding of the concept and its relevance to today's information society and knowledge-based economies among policymakers, information professionals, private sector representatives, and the general public." Kenton (2010) explored several definitions of digital literacy and its relationship to information literacy. The study also described the application of digital literacy in higher education; further, enumerated academic librarians' opportunities to adopt educational techniques to improve the students' digital literacy skills.

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Few web-based collaborative inquiry learning (WCIL) activities were explored on student DL levels to nurture DL. It was observed that WCIL activities (Jun and Pow, 2011*)* helped engage students in DL practices. With this, the students' DL levels have improved across a wide variety of indicators. Students have confirmed that they have experienced social benefits through WCIL due to developing various skills such as collaborative ability, interpersonal skills, leadership skills, articulacy, and adaptation.

Methodology

Digital literacy and academia have invited attention at the grass-root level of education. There have been tremendous changes and developments in the facets of pedagogy, library-faculty collaboration, and ICT application in classroom learning, simultaneously with ICT inclusion in social contexts. The recent literature has reflected the growth and development in diverse activities of learning. Along with the viewpoint, the chapter has taken the case example of an academic library, i.e., Jawaharlal Nehru University (JNU) Central Library, to supplement the authors' ideas and past studies. The literature has presented multiple examples of digital literacy applications in academia and the building of digital citizens.

Young Scholars: Becoming of Smart Citizens

While discussing the proliferation of 'smart' attributes in scholars inevitably leads towards growing up as an informed, smart citizen of the society. They are beginning with the smart city, which is considered the habitat for the information society, thus progressing information society and smart cities development in conjunction? It is observed as demand for accessing information has arisen, the increased supply of tools for accessing information increased. The way young scholars utilize various tools and techniques to access information has brought out their info-savvy character in the light. With endless questions and needs, young scholars are capable of providing various mechanisms. Moreover, evolution has accelerated the information and communication technologies to provide better platforms and tools for information engagement and young scholars' interest in turning them into smart citizens. While revisiting the evolution of Information Society brings many aspects to the surface (Karvalics, 2008), empowering the governance, increased inclusivity, enhanced engagement and participation, and information technologies. These aspects are possible due to increased awareness and adoption of IT-based approaches from a young age in the current millennium.

By turning the pages from the history of the information society term, first used in 1961 to indicate and describe social changes. In this context, the information society is defined as: "A new form of social existence in which the storage, production, flow, etc. of networked information plays the central role." The strength of scholarly participation and active dissemination of information has been existing for handled on its conjuncture. Information Society is based upon Smart Citizen and Knowledge workers in the Knowledge industry where the citizens know that time is saved and used for other productive purposes.

Thus, with the use of information and technology, there are opportunities for increased participation while raising awareness among society. While defining the citizen, it can be observed as "inhabitant of a city," with distinct possibilities such as free movement and residing, including the right to vote, protect, and access information (JRC Technical Report, 2014). In this context, the smart citizen with the information evolution would be an information literate technology-focused member of the society. The scholarly activities and pursuits enhanced by the digital revolution as a model exist for accessing, sharing data, and all information. There are various components for the young scholars as smart citizens to use and

strive for, including the Internet of Things, Big Data, Cloud Computing, Sensors, Telecommunication Infrastructure, Open Data Augmented Reality, GIS, UIS - MIS, and E-Government. Furthermore, young scholars have interacted with fast pacing technologies with the advent of many smart technologies and research requirements (Taylor et al., 2016). As a result, these scholars are receiving the advantages and opportunities to imbibe technological, social, and cultural aspects as smart citizens.

Understanding Young Scholars as Smart Citizen

The present scenario's specific demands at a global level compel to determine necessities and set priorities for the learning niche. The education sector has been active at the intricate levels to understand such essentials in information technologies tools as instruments of change in the higher education or research areas and societal contexts. Thus the role of technologies in enhancing the platforms of smart adoption and community engagement with the augmented participation is visible since the ascertained IT inclusion in research and learning. The informed people in every society are the valued asset for urban development. The urban development and the government are empowered due to the inclusion and increased engagement of smart citizens in the community. In the past and current centuries, we can observe changes in decision-making due to smart participation, digital individualism, service-based urbanization, etc. The efficient way for enhancing people's participation and adoption of decisions depends on various factors, such as developing practical and manifold applications for young scholars to relate geo-referenced responses and further use these results. The approaches such as the "one to many" structure for inclusion of citizens' interaction to facilitate participation at a deeper level are found (Bayar, 2017). Young scholars have few factors for smart citizens: their level of qualification, further learning, and abilities related to social contexts, including ethnic plurality, and specific attributes at individual levels such as flexibility and global issues (cosmopolitanism / Open-mindedness). Such aspects lead towards the proliferation of smart governance with the abundance of smart scholarly and digitally literate citizens for participation in decision making to enhance the transparent governance with the emphasis upon Political strategies & perspectives.

It is observed that young people as Smart citizens can generate and use information through learning systems efficiently and sustainably. The learning environment provides a technologically enhanced scenario to implement those technology-based instruments that support processing information for smart citizens. For the benefits of a smart society and smart city, the social economy is supported by the growth and development of citizen-centric applications by academicians and governmental institutions to fulfill the demand (Bayar, 2017) of information and SDI (Spatial Data Infrastructure) supported instruments.

The Learning and Smart Equilibrium

Some buzzwords are roaming into the information-based smart cities related to smart citizens. These words add to the sole purpose of smart governance and learning in the current scenario: creating awareness, enhancing technology-based services, and handling geospatial technologies' strength. These steps are crucial for building the urban capability, social capital, strengthening Culture, also controlling the costs for empowering Governance and Urban Management with the augmented participation. Moreover, such processes bring inclusion and engagement by raising awareness with some aspects of adjustments for adoption for smart citizens.

Significant Role Players in SDI And Urban Management

The data and information access are the essential components of the ways the smart citizens communicate and consume in context with SDI-based services (Spatial Data Infrastructure) and urban management. So, increased access to open data and information and the development of smart and practical tools are required. These tools are supportive in analyzing the accessed open data for smart decisions in urban living. The significance of awareness creation to empower citizens is also related to SDI-driven smart applications. The informed young scholars are tech-savvy for these smart instruments to lead urban life. Therefore, the chances and opportunities are increased with tools development related to people participation, urban living, and e-governance.

The Smart Initiatives at Education and Societal Levels

The understanding and conceptual information spread about the smart citizens are related to resource allocation through the citizens' portals in the usual sense. The vertical processes involved to manage the information for the provision of services are direct and real-time in nature. Such examples include citizen message panels, social networking, and various communication methods with the Internet or mass media. In a developing country like India, with the promise that "citizens upgrade and update themselves," the focus involves (Shankar, 2016) "technology overlaying the basic infrastructure." In the recent past (during 2016), the technological changes and upgrades were in place for initiation with the top 20 smart cities, assuming that the "success of the Mission is firmly vested in smart citizens." So, again the understanding that a "smart citizen has civic sense and respects the law" further brings out the facets such as following the rules, regulations, and laws. As stated clearly (Shankar, 2016), "awareness about smart solutions plays a crucial role in developing true smart citizens. Though the local authorities of our smart cities will make substantial investments in smart solutions, they cannot skimp on efforts to raise citizen awareness on the efficient usage of these solutions and services". It is also suggested that "A smart city connects people with their environment and city to create more efficient and optimal relationships between available resources, technology, community services, and events in the urban fabric."

A study (Williamson, 2015) examines the aspects such as "the constant flows of digital data that smart schools depend on" and younger generation "to become 'computational operatives' who must learn to code to become 'smart citizens' in the governance." It is observed that "educational space fabricated from intersecting standards, technologies, discourses and social actors" motivates and monitors young people by educating them as "active 'computational citizens' with the responsibility to compute the future of the city." The study observed the ways "how commercial vendors such as IBM and Microsoft are extending their global smart cities programs into a reimagining and reconfiguration of schools as data-based sites of real-time monitoring and measurement, where students are increasingly treated as 'data objects' whose actions can be altered through programming the environment." Examining governmental components and civil society organization's functionalities and initiatives to nurture the younger generation with the technical data skills to become smart citizens contributes to computational urbanism.

To foster citizen engagement, de Lange et al. (2019) proposed "to utilize not only interactive media for designing urban (public) spaces but also for social innovation for the benefit of citizens." The concepts of "active and passive interactive digital art" have been identified as urban interaction tools. The true nature of a smart city is visualized in the context of "decision-making processes through responsive digital infrastructures" with the fear of "turning citizens into mere nodes of socio-technical networks

under corporate or government control." The struggles of smart citizens and smart tools are observed in the smart city politics "for bottom-up participatory democracy and authoritarian control," as found in the study. In the ethnographic research on republican and cybernetic citizenship, the aspects such as sovereignty and informational environments are found (Zandbergen and Uitermark, 2020) into "appealing visions of urban life for different actors."

Academia and Digital Inclusions

Glister introduced the concept of digital literacy in one of his books. He did not elaborate on the term and explained that understanding, gathering, and utilizing the information from different digital sources is considered literacy in the digital environment (Glister, 1997). On the contrary, (Eshet 2002) argued that digital literacy is more than using information from other sources, and it is an unusual way of thinking or attitude. Shapiro and Hughes (1996) "explained the different components of computer literacy:

- *Tool literacy- ability to use hardware and software tools*
- *Resource literacy- understanding various forms, accessing the information and the information resources*
- *Social-structural literacy- understanding the production and the relevance of information in society*
- *Research literacy- using ICT technology for research and communication*
- *Publishing literacy- ability to communicate and circulate information*
- *Emerging technologies literacy- understanding of new developments in ICT*
- *Critical literacy- ability to assess the benefits of using new technologies."*

Different terms have emerged which were similar to Glister's idea of digital literacy. The term "e-literacy" is derived from "electronic literacy" and is used as a synonym for the word "computer-literacy." The term computer literacy is considered synonymous with digital literacy. Leeds University (UK) glossary of teaching technology defined:

"e-literacy-not to be confused with illiteracy, e-literacy is a much-debated topic that goes someway to combine the traditional skills of computer literacy, aspects of information literacy (the ability to find, organize and make use of digital information) with issues of interpretation, knowledge construction, and expression." (http://.leeds.ac.uk/glossaries).

Digital literacy for learning is more than just knowing the functionality of the technology; but to know the management of the right information, critical thinking skills, and proper online behavior (Tang and Chaw, 2016). It involves "the quality of ideas and is not just the know-how of the technology." Digital technology has become part and parcel of students' lives and affects the way students learn. The higher education system is adopting digital learning methodologies and engaging the students to expand their horizons. Blended learning supports students "to learn anytime, anywhere, and the way they wish to enrich themselves." It integrates the tools and technologies into the learning delivery process (Porter et al., 2014). Jisc (2014) suggested a digital literacy model which comprises seven elements: "media literacy, information literacy, digital scholarship, learning skills, communications and collaboration, career and identity management," and ICT literacy.

Digital literacy needs to be revamped as Digital technology, and in this line, Martin (2006) classified the three levels: 1) digital competence- digital acquaintance 2) digital usage- proficiency of digital applications 3) digital transformation- digital usage leas to the production of new knowledge. The research and scholarly communication in higher education primarily employ digital literacy. Applying tools and technology in the research process and disseminating information among the academic community leads to establishing a digital society.

Van Dijk (2005) proposed a model that comprises various components with different digital skills:

- Operations skills- The ability is required to operate computers and other digital tools.
- Information skills- Skill to search, select, filter, and refine information by adopting digital tools
- Strategic skills- the ability to conclude the general goals of media used in the information overload.

Van Dijk argues that a goal-oriented attitude must adopt new media and create a "network society." Chetty et al. (2018) evaluated measures to make specific digital training programmes are regularly organized using a standardized data collection framework to assess a digital literacy index at the global level. Cordell (2013) expressed in the paper that digital literacy is a more current notion than "information literacy and can relate to multiple library users in multiple types of libraries." Therefore, it is essential to determine the relationship between information literacy and digital literacy before revising the ACRL standards.

Yevelson-Shorsher (2018) studied information literacy skills from different perspectives in the academic community by evaluating students', teachers', and librarian's perceptions. The findings revealed that students realized that they lacked information literacy skills and did not receive assistance from the faculty. On the other hand, the teachers considered such skills essential and expected students to obtain them during their studies. Further, the needs and expectations of the three populations were studied; the findings revealed a greater need to improve the student's information literacy skills through the collaboration and communication between faculty, librarians, and students.

The Tripartite Situation: Academia, Libraries, and Digital Developments

Technology has revolutionized traditional academic libraries. The knowledge and skills of LIS professionals working in this environment have also changed significantly (Raju, 2014). Various types of competencies are required to work in an environment equipped with digital literacy. Developing a digital library environment requires appropriate digital skills, apt digital software, and other technological tools (Baro et al., 2019). It is also essential to manage the digital library infrastructure once the digital content has been developed. Cordell (2013) argued that a digital library is a must in the technology era of the twenty-first century. The dissemination of information to the academic community has to augment tremendously with digital technology facilities in the universities (Emiri, 2015). The librarians need to upgrade themselves with rapidly changing technological developments and digital landscapes to support the digital initiatives and cater to the clientele's needs.

Digital skills require continuous up-gradation to cope with the digital environment. Digitization of teaching and research practices has contributed to the transformation of mentoring experience in communication patterns and environment. University library staff provides researchers the required assistance that can be classified as mentors support to meet the mentees' needs (Soltovets et al., 2019). Martzoukou and Elliott (2016) suggested that public libraries create digitally inclusive and literate communities and

devise concrete policies to develop digital literacy in staff. The endemic state of inadequate information and digital literacy has been observed in the lack of libraries or education, leading towards becoming "critical consumers" who are essential for personal and national empowerment (Kanwal and Gorman). Web 2.0 tools and eLearning is encouraged within schools, colleges, and universities with concepts such as cloud computing, bring your own device (BYOD) and bring your own technology (BYOT) being considered feasible choice to facilitate students and educators to integrate tools and technology into their learning and education. With these developments in the picture, educators focus on digital literacy and proficiency among scholars.

The level of digital literacy of academic staff may be a concern within UK Higher Education (HE). The study (Garcia et al., 2013) suggests that the staffs are aware of the web-based technologies and are adopting such tools in their daily routine, but due to lack of confidence to use the same in teaching practices, particularly as students are expected to know the utilization of such tools. The study (Garcia et al., 2013) provides a research model that assists in testing the factors that may affect the degree to which academic staff feels confident in utilizing web-based technologies in their routine jobs and for teaching and learning. The case study spotlights aspects that positively and negatively influence user engagement with digital learning objects (Slade et al., 2019) and explores students' perceptions. A group of nine interactive e-tutorials was developed through articulate software to address university students' necessary digital literacy skills through instructor and student collaboration. The e-tutorials were entrenched in the institutional Learning Management System for the undergraduate and postgraduate courses ensuring digital literacy as the main component to complement classroom-based learning. (McGuinness and Fulton, 2019).

The Digital-Savvy Academia and Parallel Approaches

The meaning of "digital literacy" has changed over the years, with the inclusion and intention of a shift to a tech-savvy workforce also penetrated the classrooms. This creates a sense to assume that the digitally literate academia will employ the technology skills in the classroom to foster more robust digital citizenship in the learners at a younger age. Several instances demand attention intricately among academia, such as exploring various search platforms, authentic databases, and information gateways while including the services from Google as a bunch of powerful tools. The access to computer and internet connectivity has provided chances to locate the solutions for information access-related problems with digital literacy support. Instead of only Google, the knowledge of multiple resources and search strategies plays an intelligent role in teaching and creating digital-savvy citizens. The avenues for embedding digital literacy skills are several in the routine academic processes. Such methods include the smart teaching of evaluating the resources while understanding certain attributes like trustworthy sources, academic or commercial nature of the resource, updation, cross-referencing, and objectivity. Academic literacy also supports the learners in drawing a logical and contextual conclusion. The digital-savvy academia functions as a learning force to motivate the scholars to varied strata of creativity due to augmented understanding generated by posing relevant questions on authentic digital platforms. Digital literacy encourages learners at various levels to seek out and explore resources in the fast-changing digital environment.

Inducing Digital Citizenship

The smart digital citizen relates to the knowledge and applications of responsible uses of digital technology. This digital smartness in the citizens is found in various scenarios: social and academic. For example, the digital nuisance in "cyberbullying," an overload of information, maligning of digital presence is offensive and criminal. These malpractices by digital users can be stopped once they are digitally and psychologically literate.In the academic scenario, the issues related to plagiarism have created havoc. Various governments, educational bodies, and academic institutions have been instrumental in creating a mechanism for avoiding plagiarism. The awareness of plagiarism problems, related punishments, and academic losses has endeavored to reduce academic nuisance. On the other hand, the digital divide problems and lack of Internet connection tried to hamper the proliferation of digital literacy across society's educational stratum. There has been a decrease in the struggle related to digital access due to the advances of various digital tools, social and research platforms, innovative apps. The initiatives by the governments and academic authorities related to digital access have accentuated digital learning achievements among academia by minimizing the gaps.

Expansion of the Digital Activities in Academia

The adept nature of digital learners is visualized in the usage of technologies, digital information resources, and social networking. This limited group of activities can be increased by enhancing and relating social networking sites to academic and research usage. For example, the understanding needs to be extended to relate the usage of 'Instagram' to the application of subject-related assignments and projects. The use of various apps related to sound and voice can be extended to "historical information dissemination." The inspiration to conjoin digital technologies into academic and research pursuits requires a different perspective.The creative and correct applications of digital technologies enhance learning opportunities and mitigate the differences in the learning niche. The classroom lecture can supplement the images/visuals in the learners' tablets and other digital devices. The projects in videos or podcasts need to follow specific academic standards and legal boundaries in this context. The students' tailored experiences derive the solutions for a more significant number of students' educational needs in academia. The significant pedagogical insights are possible due to the involvement of "edtech platforms" as the "teacherpreneurs" have created teacher-based technological solutions. These digital solutions actively enhance the learning aids in the classrooms and create digital-savvy citizens at a younger age. The collaboration with peers is augmenting learning outcomes and tendencies to share technology for the young citizens in the academic settings.

With digital technology in academia, libraries have adopted ICT-based technologies to cater to users' needs. Libraries are adopting technology to manage and organize information. Many libraries have implemented Quick Response (QR) code to provide 24*7 digital services to the users in the digital environment. QR code is an innovative tool to facilitate digital services in libraries in a cost-effective manner. It is the backbone of the libraries in delivering information rapidly. Libraries are providing remote access facilities to the users to utilize the resources anytime, anywhere. It supports the academic community to concentrate on teaching-learning activities (Singh, 2016). In academics, where digital literacy has provided several access points to collect the information, at the same time, the digital landscape is polluted with the issues of plagiarism.

Recent Developments in the Digital Learning /Education

The digital literacy skills have been identified as artificial intelligence, running parallel with the internet of things, along with the support of augmented reality with routine digitization as the main course of an effective digital transformation (Sousa, 2019). Furthermore, such skills and practices have been extended with mobile technologies, tablets, and smartphone applications in digital learning and e-governance.

The development of digital literacy is now an essential element for scholars, practitioners, and policymakers. More and more virtual meetings are taking place, webinars and e-workshops are being organized for the research community. These digital developments are in the picture due to the COVID 19 pandemic but have become an integral part of higher education. The digital developments are visible in each part of the academics, such as online classes of the students by the teachers, online reference services to clientele by the libraries.

The current approach is an application of web-based learning systems to complement traditional learning. The web-based system employs a learner-friendly design and addresses the restrictions encountered by the learners, such as time, place, interaction, and availability of resources (McClelland, 2001).

Covid-19 Impact on Digital Literacy

The chaotic and alarming situations disrupted the educational frameworks during the lockdown due to the COVID 19 pandemic worldwide. However, during a close observation (Tejedor et al., 2020), the comparative study higher education system in Spain, Italy, and Ecuador showed the mechanisms to cope with the lockdown situation. This observation led to the surge in digital literacy development by disclosing the potential of teachers' digital skills, inter-organizational communication, and the enhanced tools to the current context.

In the report, Nash (2020) pointed out that due to the closure of all non-essential services, including academic institutions, the various platforms that need to be selected to encourage digital literacy came to light. Zoom was selected as the preferred platform for meetings. In addition, a private Facebook group page was created to tailor the needs of a particular group. The pros and cons of both online platforms evaluated private Facebook groups. Martzoukou (2020), in a conceptual paper based on the authors' personal experience and observations in online distance learning in the UK, stated that "academic librarians could emerge as a deliberate partner in higher education to enhance the student's digital competencies."

Due to the COVID 19 scenario, the teachers must have adequate digital literacy to engage the students and communicate online. Training program for the teachers is immediately required to make the optimum utilization of the digital skills so that a true paradigm shift may be visible, leading to the combination of methodology and educational strategies (Sánchez-Cruzado et al., 2021). The pandemic leads to mental trauma due to different experiences: social distancing, health issues, etc. Therefore, mental health and psychosocial support services must be incorporated due to the pandemic and coordinated nationally (Semo and Frissa, 2020).

How Libraries Strived the Digital Literacy into Academia

The library collaborations with academia and their significance are well observed. The constant growth of involvement has created a common platform for digital literacy and learning through various steps. The inclusion of technologies in the library niche has played a significant role in the deliberate expan-

sion of learning. In this context, the initiation of such efforts involved the training of computer literacy, internet aspects, and worldwide web-related components. Later, there has been a transition towards digital resources and various tools to access those resources. During the last decade, it has been observed that tools and technologies for academic writing, plagiarism checks, classroom tools, etc., have been digital learning components. Such technologies and tools are equally significant and valuable for faculty members and students.

Jawaharlal Nehru University (JNU) Central Library has digitized the print resources into a digital form and providing its access to the scholars 24*7. The resources are remotely accessible to the academic community anytime, anywhere. The central library organizes various educational programs, including workshops/webinars/orientation programmes/staff development programs for the academic community. During the pandemic, the library is making full efforts to stay connected with the scholarly community by organizing workshops/webinars,/training programs.

Endeavors of Digital Literacy at JNU Library

Initial Phase: The library adopted an intelligent approach to induce the IT-based environment by updating the infrastructure. As a result, significant changes and development in new systems in a considerable number with multi-tasking and flexible facilities were installed in the library. The story of 'cyberlibrary' equipped with highly modern systems was the symbol of that initiative.

The Transition: After establishing the smart information technology infrastructure, updating knowledge and skills was another concern. The rigorous training of library staff and appointments of IT-trained staff in various capacities and levels have been the steps towards the e-learning and e-governance scenario. In addition, the library began to provide a platform to the academic community for e-learning, IT tools, and interactive sessions to upgrade them with the global IT developments.

The Revolution: The library has put tremendous efforts into infusing IT and literacy among scholars. The multiple levels of training programs and hands-on practice sessions with the support of in-house and international experts have been the revolutionary step of the library. The knowledge of global governance, learning, and societal changes was the main motto of the library's efforts.

The tables below provide a glimpse of the efforts to inculcate digital literacy among scholars by physically and virtually organizing various academic sessions.

Table 1 summarizes the academic sessions on research methodology and publishing ethics organized for the academic community. Library took efforts to organize the national workshop on research methodology in social sciences (online) funded by ICSSR to benefit the JNU community and the research scholars from various institutions involved in conducting the research. The library attempts to maintain continuity in organizing such academic programmes to keep the researchers motivated and informed.

The Central Library has organized several research-oriented sessions considering the requirement of the academic community. Unfortunately, due to the pandemic, the University was closed, so all the sessions were organized virtually to establish a connection and support them. Table 2 revealed different themes that were covered in the workshops/webinars in the year 2020. The workshops/webinars covered significant themes, including publishing ethics, research methodology, reference management tools, and reference support services.

Table 3 disclosed that several academic programmes were organized in 2019 by the library for the students and research community. The various workshops such as publishing in academic journals, academic publishing, and the orientation program and training sessions have been organized.

Table 1. Workshops/orientation program during the year 2021

S.No	Name of the Academic Programme	2021
1.	e-library orientation programme	20.01.2021 – 22.01.2021
2.	Two-day National webinar on research methodology and publication ethics	04.02.2021 – 05.02.2021
3.	Five-day e-workshop on research methodology and publishing ethics	10.03.2021- 14.03.2021
4.	ICSSR sponsored a Ten-days National workshop on research methodology course (online) in Social Sciences	05.04.2021 – 14.04.2021

Table 2. Workshops/webinars/orientation program during the year 2020

S.No	Name of the Academic Programme	2020
1.	e- Workshop on research support services and publication ethics	05.11.2020-06.11.20
2.	Two-day e-workshop on research methodology and publication ethics	22.10.20 -23.10.20
3.	e-workshop on publishing ethics	15.10.20
4.	e- workshop on research support services and publication ethics	23.09.20-25.09.20
5.	Webinar on SciFinder-n: less search, more research	11.09.20 & 15.09.20
6.	Three-day e-workshop on publication ethics and research methodology	12.08.20-14.08-20
7.	Three-day workshop on research support tools & services for research scholars	16.03.20-18.03.20
8.	Workshop on writing for publishing: articles for peer-reviewed journals	04.03.20
9.	User awareness program on reference management and other editing tools for research using jaws	29.02.20
10.	Workshop on facilitating theses writing with AuthorCafe.com	19.02.20
11.	National workshop on scholarly publishing, MOOCs and OERs in education and research	13.02.20
12.	Orientation program on library e-resources and services	04.02.20
13.	Presentation on publishing in academic journals	06.01.20

Table 3. Workshops/webinars/orientation program organized in the year 2020

S. No	Name of the Academic Programme	2019
1	Workshop on publishing in academic journals: tips to help you succeed	10.01.19
2	Research methodology for visually impaired M. Phil./Ph.D./PDF scholars	9.01.19
3	Orientation program on library e-resources and services	1.01.19
4	Authorship workshop at Jawaharlal Nehru University	13.09.19
5	Author workshop by Brill	15.02.19
6	Author workshop on academic publishing for quality research: how to get published & avoid pitfalls	19.02.19
7	Training session on CEIC's CDM next application	07.08.19
8	Orientation program on library e-resources and services	13.08.19-14.08.19
9	Staff Development Programme	02.09-19 - 06.09.19

Table 4 revealed the number of workshops organized during the period from 2018-2020. The library is continuously involved in establishing a connection with the users. The efforts have been made to enrich the research community in various areas, especially in writing and publishing manuscripts. In addition, the workshop and orientation programme has been organized to benefit the students and the research community.

Table 4. Workshops organized in the year 2018

S.No	Name of the Academic Programme	2018
1	Workshop cum orientation on library resources and MS Office for HKU Users	28.09.18
2	Two-day workshop cum orientation programme for research scholars and faculty members	23.10.18
3	Workshop on KOHA library management software	22.10.18
4	National Book Week celebration in Central Library	14.11.18-20.11.18
5	How to write research papers faster and better	26.12.18

Table 5 displayed the concepts covered in the workshops/webinars/orientation programmes/training sessions during three years. It is observed from the table that more numbers of academic programmes are organized in the year 2020 due to the pandemic. Further, it is also found that the concepts and software applications like plagiarism, academic publishing, Turnitin, Drillbit, endnote, Mendeley, etc., have been covered frequently as due to the lockdown and the research community is indulged in the writing process to utilize the time in producing quality output. The library orientation program for the students has also been organized as usual. The library aims to stay connected with the users during this critical period.

FUTURE RESEARCH DIRECTIONS

The current scenario at various levels and a specific component of this chapter provide a glimpse of ongoing practices at the conjuncture of academic pursuits and young learners' potential as futuristic smart citizens. There are opportunities to explore the extent to which the smart learning application can function as a tool for smart citizens' development. The identification of the areas where the smart application tools can be applied is also to be explored in future research.

CONCLUSION

The highly emphasized mechanisms of smart cities and technological aspects have created uproar in the developing countries where the present chapter has presented the abstract visualization of how academic institutions and libraries are helpful in this scenario. The training facets provided opportunities to observe the updated techniques and software in places. How the smart cities and e-governance aspects are interrelated has been one of the questions in the minds of administrators and educators! The efforts from academic libraries are the connecting links in the chain of smart learning and governance. Though several attempts have been made in the literature to reflect how the public libraries can become pivotal in

serving the smart cities' obligations, the gap at a broader level has been filled through the present study. The role of academic libraries and institutions is more prominent in generating ideas and applications among the youth. The change expected through smart applications in the current societal strata would crusade with the young learners. The discussions in the chapter have been instrumental in depicting the present preparations and contributions in the recent past. But, certain areas demand attention, like various software, applications, and diffusing awareness at different government functionaries. Future training and learning areas for e-governance, geo-specific applications, service structure, etc., can become components to increase the purpose of building smart cities and smart young citizens.

Table 5. Concepts covered in workshops/webinars

S.No	Concept covered in workshops/webinars/orientation program/ training program	2020	2019	2018
1	Plagiarism	3	0	0
2	Research Ethics	2	0	1
3	Academic publishing	7	4	1
4	Turnitin software applications	5	2	1
5	Urkund software applications	3	0	0
6	Drillbit software applications	4	0	0
7	Endnote software applications	3	1	1
8	Mendeley software applications	3	1	1
9	Scholarly Publishing, MOOCs and OERs in Education and Research	1	0	0
10	Online resources	1	4	2
11	Grammarly software applications	3	3	1
12	Web OPAC and search techniques	2	3	1
13	Remote Access	2	3	1
14	Presentation on book acquisition and e-books	1	3	1
15	Reader Services	1	2	1
16	IT and Special Facilities in the Central Library	1	1	1
17	Workshop for Visually Impaired Students	2	1	1
18	Presentation on Science Collection.	1	1	1
19	Presentation on Asian and Language Collections	1	1	1
20	Workshop on KOHA software applications	0	1	1
21	Orientation on library resources	2	1	2
22	Research Methodology	5	0	0
23	Predatory journals and conferences	1	0	0
24	National Anti-Plagiarism Policy: UGC Regulations 2018	1	0	0
25	Archives on Contemporary History	2	0	0
26	Other	0	0	1 (National Book Week Celebration)
	Total	57	32	19

Information literacy and digital literacy are not competing for ideas, but they are complementary in higher education. The digital literacy concept can equip the students to manage and adjust to the digital environment students need to accomplish in information literacy. Both digital literacy and information literacy are essential to provide rich information to higher education students (Cordell, 2013). Technology should be seen as the catalyst due to its creative potential. It does not compel the leaders in academia to become some tech experts; instead, it increases the opportunities to unlock the latent teaching potential. Therefore, it is always recommended that the libraries plan training programs to enrich the digital literacy of the staff.

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KEY TERMS AND DEFINITIONS

COVID-19: Coronavirus (COVID-19) is an infectious disease caused by a virus which damages the lungs of human beings leading to death.

Digital Citizenship: Digital citizen refers to the use of technology with a sense of responsibility by anyone employing the use of internet and other digital devices.

Digital Learning: Any type of learning which utilizes the technology to enhance the knowledge.

Digital Literacy: Digital literacy is an ability to search, collect, filter, and use the information from digital sources. It also includes evaluating the relevant and authentic information.

Young Smart Citizens: Young smart systems are referred to those young people who can utilize the technology and can generate new information with the adoption of technology.

Chapter 15
How LAM Sector Can Improve Quality of Life for Underserved Groups via a Whole Person Approach

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ABSTRACT

A Whole Person Approach (WPA) can be used in various parts of LAM (Libraries, Archives, and Museums) sector to provide effective services for underserved groups of society to achieve civic engagement with the communities it serves. WPA is a relatively new theoretical framework in the fields of social science and healthcare. It highlights the necessity and importance of having a holistic view in dealing with different life matters and challenges. This chapter focuses on the special services that LAM sector can offer to facilitate the way towards achieving the goal of enhanced civic engagement, as serving the unserved groups of society is an urgent priority for the sector. Several Creative strategies will be discussed that can be implemented in the current services to make sure the special needs of communities that a sector serves are considered and met. A limitation of this chapter is that it is not a case study, nor is it based on field experiences. It is in fact a critical exploration of the concepts to facilitate in building a theory in an interdisciplinary perspective.

INTRODUCTION

Information professionals who work in the LAM sector (Libraries, Archives, and Museums) need to pay particular attention to the various needs of their communities and especially, to those groups of people in a community who, for whatever reasons, are not being served through the library services. Why?

Because as this article postulates, they are potentials users of services who can benefit from the many services offered by these agencies and thus improve their quality of life and their wellbeing. There are various strategies and methods that can be adopted by information professionals in this context, and one of them is a Whole Person Approach (WPA). This paper reviews existing literature in this area and identifies several themes that can be used by LAM information professionals to achieve the goal of engaging with and serving potential clientele in the community.

BACKGROUND AND LITERATURE REVIEW

The central theme of this chapter is WPA; the context is role of LAM in analysing the current challenges and finding workable solutions. The central question is how LAM agencies can improve the quality of life information provided to the underserved groups by understanding their needs.

A search for the literature related to this chapter found two steams of ideas about the trends in information dissemination. First, lack of clear strategy of LAM sector around WPA. Second, strategies of outreach using a WPA approach by LAM sector needed intensive research. Evident is another fact that WPA concept in other fields seems to get better attention, for example, under the caption of 'Arts in Medicine Now?', Hanna et al. (2017) state: "The 21st century healthcare paradigm is shifting away from a medical model driven by the protocols of disease focusing on cure. It is now becoming a system based on the caring for the whole person to sustain high quality of life throughout treatments and to better manage ongoing care."

The search for literature for this article started in WorldCat for the term "whole Person librarianship", which lead the researchers to several books. Other searches were extensively carried out, starting with Google Scholar and moving into the university subscribed databases for retrieving full texts of article discovered. All relevant search results provided by databases were manually scanned for the required words. Based on the contexts, sometimes a proximity search (Golenberg, 2008, June) was performed where the matched items were picked for a full-text search. Such a search was conducted first in title, abstract and the text to identify first the occurrence of each word, second the frequency of occurrence, and third proximity of the terms to describe the work.

WHAT IS WHOLE PERSON APPROACH?

Whole Person Approach (WPA) is a relatively recent theoretical framework in social sciences and healthcare to highlight the necessity and importance of having a holistic view in dealing with different life matters and challenges. The main purpose of WPA is to improve the quality of life and promote well-being in the society by equally paying attention to all the environmental, social, and personal aspects of life. The WPA is part of a bigger movement called Person Centred Approach (PCA), which focuses on "the person", with all their needs, characteristics, and values as the focal point of planning, policy making, and practices. Although some traces of WPA go back to the 1960s, it has gained more attention since the early 2000s in several fields such as healthcare, mental health, management, education and the LAM industry (Sultanoff, 1997; Slater, 2006; Hoover, 2007; Hallyburton et al., 2011; Waters & Buchanan, 2017).

In terms of terminology for WPA and PCA, there is a collection of related concepts such as person-centred planning, person-centred thinking, and person-centred care. These terms are not the same but have a very similar essence. Waters and Buchanan (2017) reported that PCA now is a fundamental basis of policy reform in Australia and other Western countries. They did a thematic analysis of the literature and identified seven common core themes including: honouring the person, being in relationship, social inclusion/citizenship, experiencing compassionate love, being strengths/capacity focussed, and organisational characteristics. They believe there is still no clear and comprehensive definition of this concept, and this lack of clarity may cause misunderstandings about its scope and implications.

Despite a vagueness about the exact meaning of these concepts, there is a shared spirit that connects them together. A key focus in WPA is the mutual relationships that exist between the soul and the body, and between the person and society, therefore putting the person at the centre of the process. This connecting process might be the process of healing in healthcare, or the process of learning in education, or the process of information provision in the LAM industry. In fact, person-centredness is an umbrella term for several related concepts, including client-centredness in the corporate world, user-centredness in the public services, and patient-centredness in the healthcare. Also, usually experts in these areas have used different terms interchangeably including patient-, client-, person-, individual-/-centred, -oriented, -focused, -directed (Leplege, et al. 2007).

In general, WPA helps in understanding and accepting the uniqueness of people in a society, which means though there are many similarities among people, each person is unique in the world and has sole features. Therefore, the WPA is a new inclusive and sustainable paradigm that tries to cover all aspects of people's life; their physical body, their emotions, their connections to the world and almost everything that is related to their past, present and future. The mind-body connection and the thoughts, emotions, and beliefs are very important in this context when an organisation strives to create civic connections with individuals in the community and tries to engage with them.

A review of the literature shows there are different approaches in the various person-centered perspectives. For example, Håkansson et al. (2019) in their systematic review compared two similar approaches including person-centered care and patient-centered care to identify similarities and differences between the two concepts. They discovered nine themes present in person-centered as well as in patient-centered care including: empathy, respect, engagement, relationship, communication, shared decision-making, holistic focus, individualized focus, and coordinated care. Additionally, they also found an interesting difference between them where the goal of person-centered care is to help an individual lead a meaningful life, while the goal of patient-centered care is around creating a functional life.

In summary, there is a lack of attention from Libraries, museums, and archives on the context of WPA as outlined by Lenstra, & Latham (2019), who suggest a greater need for its dissemination in the LAM sector to enhance this concept's understanding.

IDENTIFYING THE PROBLEM OF UNDERSERVED POPULATIONS

Merriam-Webster.com defines the underserved simply as ones who are provided inadequate services. The health profession similarly uses the term 'underserved population' to identify segments of communities that need particular attention. For example, sources such as USA's Patient Protection and Affordable Care Act[1] (or Obamacare) and others (Kukafka et al., 2004; Overall, 2009) describe the term 'underserved population' as areas or groups that are geographically isolated, have racial and ethnic

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minority populations, or have special needs or barriers such as language, disabilities, income/status, or age. Sometimes such a populations may also be called a vulnerable population if it is receiving fewer (medical) services compared to the general population. Though a vulnerable population may not necessarily be underserved but a combination of underserving and vulnerability can place the population at a greater risk (Kukafka et al., 2004).

A question then is that 'within a given population, who are the underserved (and consequently unengaged) people in a library or LAM sector's operating context?' The library literature especially links the underserved population to the poor, the homeless, disabled, elderly, and sometimes rural and minority populations (Overall, 2009). Medical librarians specifically identify the underserved populations from the department of health's inclusion criteria of poverty, elderliness, availability of primary care etc., and designate them as medically underserved (Zach et al., 2012). Knight et al. (2010) focus on internationals students in academic libraries and call them underserved populations as they were observed to be library space users, but not users of its learning resources and services. Kraemer et al. (2003) expand this scope to include multicultural groups. In a non-library context, the US department of education links underserved populations to minority entities and American Indian tribes[2]. So, what does it largely mean to be an underserved population? One response is that it can mean that there is a lack of adequate service provision to an individual or a group as per the general definition provided above. Advantage of using such an identification is that it creates an avenue for the service providers to provide services that bridge the gap between the need and the services (Piggott, 2015). Such bridging of gaps should create the civic engagement opportunities that LAM sector organisations need to avail.

Another term similar to underserved can be marginalised, though Piggott (2015) considers marginalisation to mean more of pushing aside, or societal isolation as 'others'. Cook (2008) also differentiates marginalisation from underserved and considers it to be a segment of society that has been "excluded from mainstream social, economic, cultural, or political life" (p. 495). Examples of such a population provided by Cook include groups excluded due to a variety of features such as race, religion, political or cultural group, age, gender, or financial status. Responding to the question stated earlier, these populations then essentially consist of the people LAM sector organisations need to engage with to better serve their communities. In Australia, 13% of adults were considered marginalised in context of their economic, social and health circumstances by end of the millennium (Cruwys et al., 2013). Cruwys's report defines marginalisation as a state where individuals are on the fringe of society because of their severe inability to access resources and opportunities.

Another question may be posed here; is there a problem of underserving or marginalisation happening in library or LAM sector contexts? The latter point is important as Cook (2008) considers that the extent to which such populations are marginalized is context specific and relies on the organization. Response to the first part can be understood in the context that the underserved population consists of individuals or groups who are not able to physically come to the library, or do not know if the library can help them with their information needs. For example, the underserved in the context of Toronto Public Libraries (TPL) statistics are the 63% of Toronto's population which is not a member (Toronto Public Library Board Presentation, 2018). Large segments of people could potentially be part of that underserved population, especially minority groups or poorer segments that typically are not users of libraries (Overall, 2009). The TPL figures do show that how difficult it is to identify or categorize underserved people who do not go to the library, and data on such groups is fairly limited as most research may end up focusing on minority communities. For all that is known, citizens of such a population may be taxpayers and hence

eligible for library services, and are yet information poor, and unaware of how the library can meet or serve their civic needs.

A surprising number of underserved citizens may not be the poverty-stricken, culturally diverse, or disabled, but may be from the upwardly mobile middle or upper-middle classes (Futterman, 2008), and therefore cannot be termed as marginalised. In fact, Futterman cites figures from Topeka & Shawnee County PL (TSCPL) to indicate that the top population segment (13.7% of population) of middle class, family-oriented, well-educated and not ethnically diverse people is the most underserved in terms of its usage of library facilities. Therefore, one response to the question is that yes, there is a problem in civic engagement as a library (or another LAM organisation) is being marginalised by some segments, and such marginalisation can erode support and hinder its ability to serve the underprivileged (the underserved population) by isolating it from a majority of the community.

Another side to underserved population is that it consists of people who are facing employment issues, and the heavy work demands hinder their ability to seek library services (Shenton, 2007, p.28). Working youth are an example of such a population, where they may have had to work from a young age to earn for their family, or may have learning disabilities that prevent them from coming to a library (p. 66). Young people, especially teenagers, may be juggling with unexpected demands of being a parent, and are in a survival mode now with very little control or coordination over their lives (Klor & Nordhausen, 2011, pp. 57-58). Providing free access to information, resources and specific programs in a safe public learning environment is a major contribution to the lives of these underserved populations that libraries can provide if they are able to identify and engage with such vulnerable segments.

An important aspect of identifying the underserved populations within the jurisdiction of a public library system is carrying out of sufficient research and not relying on mere definitions and hearsay. Most library literature reviewed for this study relied on assumptions in identifying the underserved populations, and conveniently ended up focusing on cultural and minority aspects. Mistakes can be made by assuming this manner of identification. For example, Futterman (2008) cites the example of a California county library, which believed that its Hispanic community was being underserved. A population analysis discovered a moderate Hispanic population that was well integrated and could not be termed as being underprivileged, or underserved in the sense of facing life issues identified above. Therefore, from a service point of view, providing language specific services for one perceived cultural or ethnic group may or may not serve the needs of the perceived underserved. Futterman further recommends that a reassessment of knowledge and needs of communities served by these libraries needs to be carried out to make sure that library does not alienate one underserved group while focusing on another one. The underserved population identified above may have some accidental, essential, circumstantial, and occasional needs. For a LAM organisation to recognise these needs and address the problem of underserving, Shenton's (2007) basic information needs categorization may help, which includes needs known/not known or misunderstood by the Library or the individual.

A conceptual analysis of the Whole Person Librarianship (WPL) concept is necessary for more than one reason to ensure a successful civic engagement of communities with LAM sector organisations. First, WPL is a term that is evolving in context of libraries, perhaps even innovative and creative, even though it has been in use in other disciplines since the 1960's (Sherman, 2014). Sherman states that more common usage of this terms was seen during the 70's when the Psychological theorists interpreted the concepts more explicitly when discussing the theories of student development. In libraries, the WPL phrase may perhaps trace its roots to the 'Human-Centered Librarianship' (Burkhardt, 2012), or the

relatively well known phrase user-centred librarianship, which means that the library services must be focused on humans, and should evolve with the changing needs of users (Morris, 1994).

Second, each discipline looks at the whole person context in its own way, for example, for those in healthcare, it can be thought of having its origins in anatomy or physiology of human beings (Lennon, 2010), while the psychologists would combine the physical, mental, emotional, and spiritual aspects of a human in a whole person approach (Sultanoff, 1997). In indigenous or aboriginal educational contexts, the whole person approach can be compared to a Medicine Wheel model that recognizes the four core components of spirit, heart, mind and body (Ningwakwe, 2007). As these four components essentially point to all aspects of a person's life, a balance is said to be achieved by addressing all of them. Continuing in education environment, a whole person approach includes active involvement of learners in multiple learning dimensions such as cognitive, emotional, and behavioural to develop their processing of knowledge, skills, and attitudes (Hoover et al., 2012). Therefore, 'whole' as in holistic in different contexts of disciplines is a challenge that needs conceptual clarity for LAM organisations.

Third, presumably WPL is based on a terminology that has been adapted from other disciplines, and is thus ambiguous, and mostly used in a vague situation. Such vagueness is not specific to the library usage as even when the whole person concept is used in health care, the terminology can be confusing or misleading (Lyttle, 2002). This ambiguity was clearly visible in the examples from healthcare presented above.

Ambiguity in whole person terminology may also exist because it is not holistically implemented in all information functions or services, especially since many of the LAM services are also evolving. One particularly interesting application is in the domain of the librarian as a social worker, especially when understanding and recognising homelessness and poverty among the library clientele. For example, San Francisco Public Library (SFPL) claims to be the first library in the world to hire a full-time social worker in 2007 (Zettervall, 2015). With this new focus, SFPL claims a more holistic whole person approach and service implementation.

Ambiguity in terminology is also because it may not be holistically implemented in all library functions or services. The phrase 'Whole Person Librarianship (WPL)' can be complex to understand and describe. Etymologically speaking and with a historian's perspective, WPL may have its background in human psychology and behaviour, and may therefore be an attempt by the libraries to use this concept in the interactions at the reference desk. However, WPL as described by Sara Zettervall (2015) is simply aimed at adding a newer way of collaboration of social worker with libraries. Therefore, it is by and large limited to social workers coming in the library to help librarians and users understand each other, in cases for instances with homeless, poverty, etc[3].

Relevance of WPL for the underserved in LAM context

A direct initiative to reach the under-served may also be attributed to Dr. S R Ranganathan several decades ago (Ranganathan, 1931). His third Law of Library Science, *every book its reader* is the most relevant idea to this concept. The LIS profession followed this as a practice guideline in mobile libraries for example, taking books to the doorsteps of the users who live perhaps in an underserved community. By implication, this law is taking the library to the reader, wherever they may be located. Note that Ranganathan explicitly stated book, and neither intends nor pretends to indicate that information is being taken to the doorstep of the user. Information was and is still available within the four-walls, or by extension digitally, and limited to a membership pool. Nonetheless, there are still many opportunities

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for librarians and information professionals in other information agencies to achieve the goal of reaching their underserved communities with a bit of creativity and innovation

MAIN LIFE MAIN LIFE CHALLENGES FOR UNDERSERVED GROUPS

Life challenges for the underserved are basically about everyday survival needs, whether they are an immigrant or a citizen. Further, as has been touched upon earlier, it may be for the economically weak sections, or those who are not economically weak but are information poor. Life challenges can be because of many reasons, such as economic, political, structural inequalities in the society etc. These challenges may not be met for those who are not able to come to the library, or do not know if the library will help, or feel hesitant.

Life challenges or life skills for example, are mainly employment and parenting. However, there are other challenges. For example, access to the everyday life information for an average citizen (who are ordinary people, i.e., the public, irrespective of social class or medium, who are consumers of goods, services, etc.) is getting complex. These average citizens are taxpayers and thus eligible for library services, and yet may be information poor, and thereby powerless.

On one side is the citizen (think of the haves as the information poor). That is, the ordinary citizens who need political, legal, economic, social, technological, and environmental information for day-to-day survival. For example, Online Dictionary for Library and Information Science defines, community information system (CIS) as a 'a centralized source providing government, business, historical, and geographic information about a local community…" Whereas in practice, the resources available for the survival information are not anyways sitting in a library of categorized and personalized content. Rather these required resources are scattered and may be at different places, for example, libraries, family & friends, public and private organizations, social media, etc. In addition to this scattered scenario, there are gaps in libraries in terms of focus as well as a lack of dedicated training in LIS programs. For example, Sirett (2014: 21) states: *"…disconnect between libraries and the diverse, often socially excluded, community members they seek to serve remains today*." Being so scattered and/or disadvantaged, and uneven focus by public libraries, with a series of random initiatives and isolated practices (Black and Muddiman, 1997) seems to be the crux of the problem for the subject that was once called community librarianship.

The other side is that of technological diversity, which is also expanding in many directions and gives hopes that all info media will eventually combine to become a one-step access medium to get the required everyday information. But citizens see no such synchronisation of technology so far in place or context. Sadly, even this sophisticated mechanism has not helped anyone in everyday survival (Katz, 1988, p. 242). Reason may be the following barriers as major obstacles that underserved citizens often face in their everyday life.

Because of library's policy, vision, mission (i.e., the direction is otherwise towards meeting the needs of those who are already served)

Transportation (i.e., where underserved have difficulty getting there),

Library's service awareness among underserved citizens (i.e., people do not know or cannot figure out what they can get from the library),

Lack of knowledge among the library planners about the underserved

Lack of info literacy among the underserved (i.e. internet, digital age and so on)

PRACTICAL IMPLICATIONS FOR LAM

Adopting this approach in our research and practice brings its own implications and obligations. For example, for an information professional who adopts WPA as a policy of work, a library client is not just a neutral and passive receiver of information. The clients bring their needs, cultural backgrounds and perceptions into a LAM agency, and the information professionals working there should be fully aware of the importance of contextual influencing factors. More importantly, the client is not just concerned about the information provided. Rather, they have a life full of untold stories and unsolved challenges that affect their perception about library services. Having a WPA approach can affect almost all the policy and practice processes in the LAM industry to make sure they perform the civic duties they are entrusted with.

In another example, collection development policy in a library may be reformed by taking a WPA approach so that the collections are more appealing to the communities served. For instance, it may be decided to collect more novel and fictional books for an academic library in the light of WPA. Such a move would probably not be recommended under a conventional policy that focused on academic resources, but is nevertheless recommended by several researchers (Gallik, 1994; Hsieh and Runner, 2005; Dewan, 2010; Kim, 2016). Thus, such a perspective is a reminder for us that an academic library, just like any other library, should serve the whole person (Hallyburton et al., 2011) and not just the cognitive side. In this case, pleasure reading may help faculty members and students to enjoy their time and find sources of inspiration through reading fiction, which is important for self-actualization and empowerment.

Dewan (2010) also argues that academic library needs a popular reading collection now more than ever for several reasons. For example, when most of the resources are available online, the students need library as a place. Then the library building becomes more important not just for reading or borrowing books, but for having a social life and interaction with peers, thus enhancing the engagement with a community focus. Bailin (2011) highlights the importance of library space and cited Oldenburg (1989) to introduce libraries as a classic example of the "Third Place", which means anywhere outside of home and work environment that a person feels comfortable in, and uses for self-actualization activities such as reading. Third Places are important in a society to foster friendship and enhance social inclusion, which are key components of the WPA concept. In particular, the need for LAM sector is to provide creative and imaginative services for the poor and the unemployed groups in the community (Alexander, 2008).

Libraries and other cultural institutions in the LAM industry will be successful when they can fulfill their civic duties by helping their clients to be healthier and happier. They cannot be indifferent to everyday life problems of their community members and be there just to provide them with information resources. If, for whatever reason, people feel disheartened or distressed, how can they be expected to use LAM sector services effectively?

In summary, the need is to show community members that their challenges and concerns can be addressed if they allow LAM agencies to collaborate with them to improve their quality of their life. WPA is more than just a technique to implement as the above narrative indicates. This is more about adapting wholesome attitudes, perceptions, and beliefs, and to replace competition with collaboration to enhance civic engagement and interaction. Such an approach may be vital for serving the underserved populations.

DISCUSSION AND CONCLUSION

The discussion presented in this article makes it obvious that LAM sector must re-invent the wheel in reaching the unreached and serving the underserved. Information professionals need to switch their vision to a progressive one so that they can clearly see the invisible unserved users in their own neighbourhood. This approach would imply that the outreach is not simply taking the books to the unserved or underserved. Rather, it is about understanding and serving the survival information needs to meet the daily life needs of their communities.

To explore the role of information professionals in performing their civic duties, several major themes should be considered to derive engagement recommendations. For example, a first step can be to find out what kinds and how much information is typically required or accessed by underserved community members to compare with the existing resources and services provided by the information agency. This comparison would require an evaluation of the resource and staff capacities to find the strength out of existing community services at any given point in time. Or how good and resourceful the social and media networks are in the library. Such an exercise should provide a realistic picture and details on the current situation in terms of facilities and services. Along with this, a next step can potentially be to discover the citizen's choice/priority in finding information and find out whether the library is at the top of the list. Such a discovery is vital to ascertain the role of the main competitors of libraries, archives, and museums in this era of virtual social networks.

This paper concludes that serving unserved groups of society is an urgent priority for the LAM sector before it can fully engage with the communities it serves. A number of strategies that can be implemented in the current services have been suggested to ensure the special needs of clients with the central concept of WPA, as has been introduced in this paper, being an effective approach to achieve the engagement goals. The WPA approach has been deemed as effective and successful for several reasons. First, it is a comprehensive approach that considers different aspects of life and will eventually lead to general wellbeing for everyone. Second, adopting this approach does not require huge financial or technical infrastructure but is more focused on changing current perceptions and being creative to initiate new services based on this approach. As a result, it can be done even in small and regional/rural information agencies to provide inclusive and engaging services to the various groups of unserved or underserved groups of society residing in the community.

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ENDOTES

1   https://definedterm.com/underserved_population
2   https://www2.ed.gov/programs/rsatup/index.html
3   See also https://wholepersonlibrarianship.com/about-2/

Chapter 16
Extending Shiyali Ramamrita Ranganathan in the 21st Century:
Social Justice Laws of Librarianship

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ABSTRACT

This chapter traces the actualities and possibilities of representing social justice and social equity concerns in LIS via extending Ranganathan's five laws of librarianship within today's contemporary neoliberal and geopolitical realities. Blinders in librarianship are identified in its resistance to intentional, systematic, action-oriented, community-engaged, and impact-driven strategies of social justice and real change owing to its White-IST (white + elitist) roots. These are speculated in relation to the profession's undervaluing of Ranganathan's contributions because of his South Asian (i.e., East Indian) origins as a result of the pedestalizing of its Anglo/Eurocentric components within the legacies of a colonized and imperialistic world order. A manifesto of social justice laws of librarianship is proposed to address past and recent lapses in LIS.

INTRODUCTION

Shiyali Ramamrita Ranganathan (1892-1972) is considered the father of library science (or librarianship), documentation, and information science in India with his vast knowledge, direction, purpose, creativity, sensitivity, and vision for the growth of the intersecting professions in the country, and the world at large (Das and Patra, 2008; Garfield, 1984; La Barre, 2004; Mehra, Potnis, and Morden, 2012; Sharma, 1984). Sir Maurice Gwyer, former vice-chancellor, Delhi University, once called Ranganathan the "prince among librarians" (Sharma, 1979, p. 58). Jesse Hauk Shera, an eminent American librarian and information scientist who spearheaded technology use in libraries from 1950-1970, wrote: "If there is any single individual who merits being called a 'one man library movement,' certainly he [Rangana-

than] has earned that distinction through his accomplishments in India" (Shera, 1963, p.581). Amongst his numerous achievements in library and information science (LIS), Ranganathan is most well-known globally for the five laws of library science (Ranganathan, 1931), development of the first faceted classification (i.e., Colon Classification) (Ranganathan, 1933), and chain indexing for deriving subject-index entries (Ranganathan, 1938). Ranganathan was also a wise LIS educator and faculty member in various Indian universities, making noteworthy contributions such as starting the first LIS doctoral program at the University of Delhi in 1948 (Kumar, 1987).

This chapter briefly traces the actualities and possibilities of representing social justice and social equity concerns in LIS via extending Ranganathan's five laws of library science within today's contemporary neoliberal and geopolitical realities (Buschman, 2017; Cifor and Lee, 2017; Mehra, 2021a; Ranganathan, 1931). Blinders in librarianship owing to its White-IST (white + elitist) roots are essentially responsible for its resistance to intentional, systematic, action-oriented, community-engaged, and impact-driven strategies that further social justice and real change, via information-related work, in the everyday lives of all people, including those on the margins of society (Cooke, 2020; Gray and Mehra, 2021; Mehra, 2021b). Such limitations in LIS as a discipline and field are referenced in this chapter, also, in relation to the biases perpetuated in its scholarship and practice (Abbott, 2001; Bonnici, Julien, and Burnett, 2013; Lugya, 2014; Mehra, 2021c; Moniarou-Papaconstantinou et al., 2010). One problematic dimension of this in an oppressive LIS climate has led to a possible under-application of Ranganathan's contributions (e.g., Colon Classification) because of his South Asian (i.e., East Indian) origins in a western world that solely pedestalized its Anglo/Eurocentric LIS components within the historical legacies of a colonized and imperialistic world order (Naidu, 2017). In a reflective critique of the International Federation of Library Associations (IFLA), Donald G. Davis, Jr. (2000) notes that even in the 1950s, Ranganathan himself provided a "brave and damning indictment of the treatment the so-called developing world" (p. 15) received in the IFLA organization, when he suggested the persistence of "the old view that 'international' in IFLA is exhausted by Western Europe and Northern America" and "It may be unconscious and even unmeant on their part. But to us outsiders, it is clear as day light in the tropics" (Ranganathan, 1954, p. 183).

In this chapter, a manifesto consisting of social justice laws of librarianship addresses past and recent lapses that is contextualized in response to considerations of the contemporary climate. This author makes an intentional choice to use "librarianship" (instead of "library science" as used by Ranganathan) in referring to the social justice laws for representing a broader perspective in the praxis of the profession (instead of a parochial academic and/or narrow disciplinary scope) (Freire, 1970). I present this chapter in its totality as a social justice manifesto that revitalizes and re-interprets Ranganathan's five laws of library science as the "renewed" social justice laws of librarianship. The narrative first addresses the inherited grievances and social injustices in LIS, followed by a discussion of select injustices toward Ranganathan's legacy. These sections lay the foundation to identify broad assumptions and caveats represented in the social justice manifesto. These serve as the connective tissue to strengthen the reconstruction of the social justice laws of librarianship that are framed in terms of the "FROM" highlighting the original "TO" their new form and meaning. Each social justice law is structured in terms of the "what to do" (i.e., why) and the "how to do" suggestions for readers to actualize them in their own work settings. In this manner, readers can draw on these pieces together in helping them operationalize and implement the laws in their situational contexts while responding to the diverse circumstances and conditions they experience.

A social justice perspective in LIS leans towards strong activism and advocacy to support fairness, justice, equity/equality, change agency, and community development via information-related work, with, and on behalf of all people (Mehra and Rioux, 2016). The social justice laws extend Ranganathan's conceptualization (and that of others since) to identify new directions of contemporary value for a feeble and undervalued LIS, if one examines its current poor placement within society's top decision-makers and power brokers (e.g., politicians, policymakers, judges and lawyers, technocrats, corporations and businesses, medical and health industry, etc.) (Mehra, 2021d). Emerging initiatives in LIS illustrating social justice laws in a global context can facilitate opportunities for the forward-looking progressive librarian and information professional (in all her diverse types and roles) as they implement actual practices, policies, and information offerings. Such efforts will provide a more contextually relevant conceptualization grounded in social justice values and vocabularies as compared to a traditional past (Mehra and Sandusky, 2009). As a result, we might be able to generate more social, cultural, political, and economic impacts to shape revitalized public perceptions about the value of LIS (Tang, Mehra, Du, and Zhao, 2021). It would require switching the proverbial psychocultural "mindset" of the profession at a global level toward an outward-applied, community-centered understanding of itself (Roy, Jensen, and Meyers, 2009). It would mean that LIS needs to go beyond the metaphor of the "frog in the well" and its implied and real shortcomings. The predominant tendency in LIS to remain isolationist and insular, positioned in its own centrality as the prime de force, nearly ran itself out of existence, like the death of the unadapting dodo in evolutionary history (Mehra, 2017).

INHERITED GRIEVANCES AND SOCIAL INJUSTICES

On June 29, 2021, during its Annual and Exhibition virtual conference the American Library Association (ALA) Council unanimously adopted a new (ninth) Code of Ethics principle on racial and social justice: "We affirm the inherent dignity and rights of every person. We work to recognize and dismantle systemic and individual biases; to confront inequity and oppression; to enhance diversity and inclusion; and to advance racial and social justice in our libraries, communities, profession, and associations through awareness, advocacy, education, collaboration, services, and allocation of resources and spaces" (ALA, 2021a). A press release (2021b) noted that the "new professional guideline illustrates ALA's continued commitment to providing library professionals with resources that promote equity within library service and librarianship" and "further emphasizes diversity and inclusion as one of the profession's core values." This long overdue statement from the profession's leading association in the United States only in the second decade of the 21st century, after years (if not centuries) of racism and elitism in its midst, just illustrates the long resistance and slumber in privileged library networks to articulate its own value in terms of social justice constructs (Mehra and Gray, 2020). It spotlights an immediacy to learn the how-to's of integrating impact-driven and community-engaged social justice and inclusion activism via information-related work in galleries, libraries, archives, and museum (GLAM) settings (Castells, 2015; Elmborg, 2008; Jaeger, Shilton, and Koepfler, 2016; Mehra, Elmborg, and Sweeney, 2019). The five social justice laws of librarianship extending Ranganathan's legacy in this chapter might provide an impetus in this regard. In the foregrounding of ALA's new ethical principle, I draw a strong line between this contemporary development and the five laws of library science to bridge the gap between where we are now and where we can go, given this late attempt to incorporate social justice in the foundational principles of ALA (Mehra, 2021a). My critical strategy in the chapter builds on the recent voracious

demands of elitist, predominantly white associations such as the ALA, for accountability and "owning up" to its sanitizing (a.k.a., "whitewashing") of its problematic, white-centered histories (Mehra and Gray, 2020; Wiegand, 2020).

We imagine that with the philosophical roots of service-based ethics historically evidenced in the varied manifestations of the professions of librarianship (broadly construed to include academic, public, school, special, and other) around the world, its contemporary praxis would naturally (and logically) lead towards a responsive integration of diversity, equity, inclusion, and accessibility; social justice and social responsibility; and community engagement initiatives (Cogell and Gruwell, 2001; Jaeger et al., 2015; Mehra, Bishop, and Partee II, 2018; Rioux, 2010). Alas, its limited role as solely information creators, organizers, and access providers entrenched in information-based egocentricity in library science practice and information science scholarship owing to privileged Anglo/Eurocentric roots have been difficult to shake-off! (Bourg, 2014; Branche 2012; Dudley 2019; Mehra and Gray, 2020). The cultural exclusiveness has translated to a problematic historical and contemporary insignificance of LIS worldwide with its idiosyncratic challenges in each country. Further, until recently, we continued to find strong resistance among the majority in LIS to discard outdated notions of passive neutrality, inward-looking elitist tendencies, and perceived role as bystander public agents disengaged while community dynamics enfolded. It has also led to a limited development of cookie-cutter standards and best practices imposed in applying simplistic organization and management strategies in librarianship that seek to homogenize all complex realities of diverse people and communities in their interactions with information and technologies (while treating them as exactly the "same") (Gibson et al., 2020; Jaeger et al., 2011).

A related and unfortunate consequence is the tendency to privilege positivist and postpositivist methods and methodologies in LIS as their dark shadows stayed dominant in nearly every discipline within the privileged bastions of higher learning in the western world (Mehra and Gray, 2020). The positivist paradigm in research, based upon the understanding that an objective and independent reality exists, can be observed and measured following an empirical process of discovery and analysis (Mertens, 2019). A shift to a postpositivist paradigm "acknowledges that there can be no completely objective view of reality; however, understanding is still built upon empirical observation and experimental testing of existing theory" (Mehra and Sikes, 2021, p. 23). It is the responsibility of the researcher (and the librarian or information professional) to demonstrate the objectiveness of social facts, open as they are to interpretation and uncertainty, via an extensive description of the research process (or predominantly quantitative assessment language used to articulate the value of the information resource or service design) (Pickard, 2013). In LIS, the predominance of the positivist and postpositivist paradigms has been at the exclusion or poor conceptualization of the humanist and interpretive approaches, mixed methods, action research, qualitative narratology, ethnography, participant observation, and many others from the black box categories of what we consider legit while bestowing some with recognition and discarding others (Mehra and Gray, 2020).

I briefly illustrate the limitations of a western academic perspective of the "humanist" (or humanism) point of view when critiqued in terms of a social justice imperative. In historical and contemporary circles, the "humanist" has been associated with librarianship more generally, as well as in relation to the narrow interpretation and solely abstracted philosophical application of Ranganathan's five laws of library science. A "humanist" attitude, approach, and values, etymologically derived from the Italian word *umanista* (i.e., sophisticated scholar of any subjects except theology), includes notions of (Copson, 2015): 1) Understanding reality; 2) Understanding ourselves; 3) The good life and the whole person; 4) Morality. With their strong Greco-Roman and Judeo-Christian roots, these unfortunately have not been

understood in mainstream and popular culture to include actions that can directly change the status quo conditions that humanity might encounter or experience to make the world equitable, fair, and just (i.e., social justice). The boxed categories of theology (inclusive of religion, philosophy, ethics, and spirituality), separate from other facets of the human existence and secular experience, is also a biased construct emerging from a narrow sectarian viewpoint in the western world. It has led to the distancing of social justice actions from academic scholarship in the humanist disciplines (including libraries) that emerged in Anglo/Euro institutions of higher learning.

For example, the basis of a humanist librarianship in the ideal of human anatomy has often been discussed and rationalized in philosophical and abstracted terms, with "autonomy" as the "key to humanism, which also unlocks librarianship's enmeshment with the goal of the "good society" … [that is] social change for human development" (Rosenzweig, 2004, p. 40). From a social justice position, what is problematic is how the change is made and the specific actions needed that are often conspicuous in their absence (Mehra, 2021d). Michael Stephens (2019) provides a "wholehearted" picture of librarianship in "finding hope, inspiration, and balance" through a humanist lens in reflecting on topics as "how libraries can empower kindness"; develop a kindred network with others outside librarianship; inspire creativity in patrons; among other characteristics of "compassionate leadership." The predominance of such sappy (i.e., "touchy-feely") self-indulging notions of librarianship has been detrimental to its multipronged growth, impact, and opportunities. These "feel good" descriptions have been limited owing to an exclusion of action-oriented directives within the humanist library that could unswervingly confront and change society's imbalances and inequities (Mehra, 2021e). We find many other recent critiques of humanism and librarianship intersections. For example, Vesa Suominen (2016) provides an ethico-philosophical reflection on the overly self-confident humanism applied to a possible history-oriented rationality of the library and librarianship (labeled as "arrogant" by the author). Similarly, in valuing Ranganathan's five laws of library science only in terms of a westernized association of humanism, a social justice agenda of actions to rectify imbalanced power dynamics gets totally missed. The motivation to articulate the social justice manifesto (and the social justice laws) in this chapter is to extend the understanding of humanism and humanist values in LIS toward embracing a stronger sense of social responsibility and social justice via an action-oriented framework that is currently absent besides lip-service, tokenism, and performative politics (Mehra, 2021a; Mehra and Gray, 2020).

SELECT INJUSTICES TOWARD RANGANATHAN'S LEGACY

Ranganathan's (1931) five laws of library science include (Hicks, 2010): 1) The books are to be used; 2) Every reader has his [sic] book [The "sic" reference is drawing attention to the limited cultural usage within a spatial/temporal context of gender bias and exclusiveness that is reflected in the language]; 3) Every book has its reader; 4) Save the reader's time; 5) A library is a growing organism. Michael Gorman (1998) [as well as many others] recognized these as "an intellectual framework for understanding all aspects of library work" (p. 22) after he reinterpreted (and extended) them for the modern library, paving its way for technology adoption, and included (Gorman, 1995, p. 785): 1) Libraries serve humanity; 2) Respect all forms by which knowledge is communicated; 3) Use technology intelligently to enhance service; 4) Protect free access to knowledge; 5) Honor the past and create the future. These too are considered from a pseudo-secular perspective, emerging from attributes of a narrow humanist librarianship,

that identify, define, and argue their scope in a distanced rhetorical and semantic communication style, separate from taking and implementing actions for promoting social change.

Even from a sectarian Christian perspective, J. R. Doerksen (2001) critiques the challenge Gorman (2000) posed to Christian librarians for sharing "values that can be derived completely from a humanistic perspective" while furthering these as librarianship's "conventional wisdom" (p. 11). These values included stewardship, service, intellectual freedom, rationalism, literacy and learning, equity of access to recoded knowledge and information, privacy, and democracy, notions of "what he thinks secular librarianship should be" (Doerksen, 2001, p. 12). Emerging from a missionary zeal of "service" to the impoverished, who are considered needy and helpless, unable to make changes in their own disenfranchised circumstances, such biases (and others) have provided a poorly conceived deficit-framed perspective of our patrons (and external communities) in mainstream librarianship (Mehra and Bishop, 2007). It has perpetuated a similarly developed biased idea of "information need" of the users of information systems and services in human information behavior research to build the egoist and self-indulging conceptualization of the information science scholar, educator, and academic in western society (Mehra and Gray, 2020). Owing to the Anglo/Euro roots of LIS and their privileged positions for "role-modeling" all around the world, such biased concepts and constructs have had a hegemonic impact globally on every aspect in LIS, internalized and practiced without question until recent years (Mehra and Bishop, 2005). More progressive ideas of marginalization (to understand the "other" in LIS) recognize the social, political, cultural, and economic circumstances that shape conditions of power differentials (Mehra, Sikes, and Singh, 2020). They apply constructive principles of change agency, empowerment, self-efficacy, and supporting people's own abilities and strengths via "helping people help themselves," instead of the outdated and regressive idea of "helping people" that has been tied to a poor service model in librarianship (Mehra, Albright, and Rioux, 2006).

The outstanding contributions of Ranganathan placed Indian librarianship on the global map because of the worldwide impact of his work (Garfield, 1984). The inherited biases (briefly glimpsed above) provide some misses owing to his stigmatization and limited contextualized cultural setting. Ranganathan's "deceptively simple" five laws of library science reflect humanist considerations from a literal standpoint and much of his works are "liberally sprinkled with allusions to the Hindi scriptures" (Garfield, 1984, p. 38). His application of the PMEST facet formula (personality-matter-energy-space-time) in the analytico-synthetic method developed for the Colon Classification has undertones of spirituality and the philosophical (humanist) traditions of the east (Jayapradeep and Devi, 2019). Yet, it is very much action-oriented—*karmayogin,* the "detached performer of actions," a spiritual designation attributed to Ranganathan (Seshadri, 1965) for providing a mechanism of actions for the librarian to take in classifying subjects and representing knowledge domains considered to have a "multidimensional structure, enshrining a multiplicity of complex relations" (i.e., the facets) (Satija, 2001). These logical actions of identification, analysis, and synthesis to formulate descriptions and systems of representation and organization of knowledge, however, are limited in reference to only an internal environment of the institution (and not externalized to communities outside of libraries) (Hjørland, 2013). Yet, in developing classification and cataloging principles for the internal representation and organization of knowledge (and information) they do have strong spiritual (humanist) underpinnings that is inclusive of specific actions.

Reinterpretation of the five laws of library science by scholars and librarians have not picked on these "action-oriented" directives of humanism in mainstream circles, staying abstract and fixated on the "dated language" that was "off-putting" to some Anglo/Euro scholars (McMenemy, 2007). The facet-based conceptualization and blueprint of the Colon Classification is considered way ahead of its times

for its relevance and application to hyperlinked technology and the hypertextualized digital networked information environment, shaping the early forms of the world wide web that became precursors to the modern Internet (Ferreira et al., 2019). Yet, the Colon Classification stayed (and still is) underutilized in American and European libraries, behind in popularity of the Dewey Decimal Classification, Universal Decimal Classification, and the Library of Congress Classification (Raghavan, 2015). Kathryne La Barre (2009) provides a historical walk-through the broad contours of Ranganathan's legacy and undervaluation in North America, documenting that it was probably during Ranganathan's first extended visit to the continent in 1950 that he met James Perry, later associated with the Center for Documentation and Communications Research (CDCR), and "decided to co-write an article on teamwork among disciplines, which briefly discussed Ranganathan's classification theories" (p. 18) [i.e., Ranganathan and Perry, 1951]. In 1959, the CDCR (where Perry began working with Allen Kent) hosted the Western Reserve University Conference on a Common Language for Machinery Search where Ranganathan presented multiple papers. Yet, the CDCR issued "a report which attempted to minimize any intellectual debt to Ranganathan while admitting a high degree of complementarity" (La Barre, 2009, p. 18) between Kent and Perry's research on the Semantic Code from the early 1950s, and Ranganathan's Colon Classification from the 1930s, when many researchers started noting similarities between the two (Melton, 1960).

In this chapter, I provide a short note touching on the colonial world and cultural milieu within which Ranganathan grew and emerged as a librarian since these conditions had significant bearing upon his global impact, "some acknowledged" and others not (Taher, 2001, p.103). Elements of his life journey that played a role in shaping the person that he became and the influence that he had on the profession, includes: his birth in British India, in 1892, in Siyali (now Sirkazhi), a municipal town in the southern part of the country; his training as a mathematician entering reluctantly into librarianship; receiving an honors certificate from the School of Librarianship, University of London, over a nine-month stay; inheriting an "ill-organized, poorly attended, and understaffed institution" upon his return; facing bureaucratic challenges in his career growth; and, derailing conflicts in higher administration that forced him into early retirement (Garfield, 1984). In a biography, Ranganathan's son provides a lucid and fascinating account recollecting memories, observations, and insights into the mind of a genius that was his father, also highlighting his challenges and struggles, that included: "expulsion from Madras" (Ranganathan, 2001, p. 231), mistreatment and conflicts with higher education administrators, career hinderance owing to stammering during the early years, consistent lip-service during his American tours, and more. In hypothetical comparison, if he was a white male librarian (or information professional) from a western nation, Ranganathan's impact and following would have surely been different.

ASSUMPTIONS AND CAVEATS

A social justice manifesto is developed in this chapter on the premise that humanism and humanistic values from westernized semantics and ontology have led to a limited adoption and application of Ranganathan's five laws library science. Its underlying motivation is to further humanism and humanistic values in LIS via an action-centered framework that directly addresses issues of intersecting privileges and oppressions while applying information-related work to further social justice principles of fairness, equity, and justice (amongst others). This manifesto responds to the manifold contemporary circumstances, challenges, and opportunities in the 21st century. These include a postcolonial and post-imperialistic world; neoliberal commodification in a globalized information networked society; immersive and ubiquitous informa-

tion and communication technologies use; need for social and digital media critical literacies; and the politicization and spread of dis/misinformation via news media channels. (Mehra, 2021a). The social justice manifesto also strongly affirms adoption of social justice principles of fairness, equity, equality, justice, empathy, empowerment, change agency, and community building in LIS via information-related work (Mehra, 2015). Social justice in LIS then translates to information actions and activities that make an impact to change social, cultural, political, economic, and other imbalanced realities (Mehra, 2019). Broad assumptions and caveats represented in the manifesto in relation to the five social justice laws of librarianship include:

- Expand "books" to "information" integrating all its three distinguished meanings and the inter-sections of information-as-process", "information-as-knowledge", and "information-as-thing" (Buckland, 1991).
- Go beyond patron/user/customer/client to holistic person who is situated in their "personhood" (recognizing that so is the librarian and information professional with all her strengths and weak-nesses) => Understand importance of context/situation; recognize ambiguities (unknowns) and willing to work with them.
- Go beyond "reading"/"reader" to "knowing"/"knower" that includes all sensory perceptions of experienced reality (e.g., listening (sound), viewing (sight), speaking (mouth), smelling, tasting, touching), and more. This implies accepting fuzzy boundaries of meaning-making and making "sense" through the sensory perceptions, and more. It involves phenomenology or study of expe-riential reality, including alternate knowledge systems.
- Translate "information" to knowledge building and knowledge development of the self-and-others to recognize the role of the individual in self-efficacy, self-empowerment, change agents, and making a difference in their own conditions of reality (Teach a person to fish instead of giving the fish to the person).

SOCIAL JUSTICE LAWS OF LIBRARIANSHIP

This section briefly introduces the social justice laws of librarianship. They are presented in terms of "What To Do?" and "How To do?" [representing the "action" in social justice]. They are developed from Taher's (2021) reflection on embracing equity, diversity, inclusion, engagement, and empowerment in theory, practice, and research conducted at GLAM institutions while exploring new ways of assessing meaning-making and relevance of the five laws of library science. Each of the five laws of social justice in librarianship are assigned one or more elements of the PMEST facet formula (personality-matter-energy-space-time) that Ranganathan (1933) developed for subject analysis in the Colon Classification. Each of these elements were initially described by him to represent different facets of knowledge (and information) in the subjects of the documents (or "books" at the time) for its organization and classifi-cation. Here, I apply these elements to highlight different dimensions of social justice as expressive in the individual laws.

First Law of Social Justice in Librarianship

FROM "The books are to be used" (Ranganathan's First Law) TO "Information is for equitable use to make an impact via social justice changes in people's everyday lives" [Personality: most specific or focal subject)].

- What To Do? Apply plurality of measures and measurement to determine assess use and its impact at different levels (e.g., social, cultural, political, etc.) differently for different people (i.e., equity) via applying varied paradigms, approaches, methods, methodologies, and strategies, including formal, informal; qualitative, quantitative; collecting multiple stakeholders' point of view (Mehra and Sikes, 2021).
- How To Do? Traditional functions of librarianship (e.g., acquisition, storage, processing, dissemination/delivery, etc.) are applied towards a non-traditional purpose (i.e., to change the imbalanced power differentials at different intersecting social-cultural-political-economic levels in how they manifest uniquely for each person, as relevant).

A social justice interpretation of Ranganathan's first law calls for translating the "right information, in the right form, to the right person, at the right cost, at the right time, in the right place" to taking the "right action" and recognizing individually tailored critical information literacies, community meanings, and participatory civic engagement to further social justice changes.

Second Law of Social Justice in Librarianship

FROM "Every reader has his [sic] book" (Ranganathan's Second Law) TO "Every person their information to meet their needs and make the world a better place for themselves and others" (i.e., by the people, of the people, and for the people [Matter: substance, property, or materials of the subject; Energy: processes, operations, and activities].

- What To Do? Identify the "needs" (wants, expectations, realities) of the person (including the vulnerable) beyond library or information-centricity.
- How To Do? Generate impact via use/user generated content, sustainable engagement, community-engaged collaborations with external constituencies and using culturally relevant and community-appropriate metrics.

A social justice interpretation of Ranganathan's second law draws attention to an urgent need for LIS to shift its focus on person-centricity in community context as compared to library-centered initiatives or information-centered conceptualization.

Third Law of Social Justice in Librarianship

FROM "Every book has its reader" (Ranganathan's Third Law) TO "Every information is developed in response to situated context of the person and their interactions with the librarian" [Energy: processes, operations, and activities; Matter: substance, property, or materials of the subject].

- What To Do? Develop a positive experience for the person to provide them what they need. Facilitate conscious decision-making around information application and use.
- How To Do? Self-reflection and practicing ethical responsibility (e.g., via asset-framed constructive approaches) and reflective critical practices.

A social justice interpretation of Ranganathan's third law calls for community engagement (i.e., outreach) for the librarian (or information professional) to look outwards of their institutions as they find ways to operationalize synergies via collaborations and partnerships with external communities (and individuals), "making new pathways" toward meaningful experiences and value for all, including underserved populations (Rimland, 2007).

Fourth Law of Social Justice in Librarianship

FROM "Save the reader's time" (Ranganathan's Fourth Law) TO "Facilitate implementing action-oriented information activities situated and responsive to contextual realities" [Space: which relates to the geographic location of the subject; Time: which refers to the dates or seasons of the subject].

- What To Do? Apply use of information tools (e.g., library guides, electronic databases, resources) in informing, enabling, and equitizing.
- How To Do? Adapting and innovating with change to encourage sustainable partnerships for people to flourish.

A social justice interpretation of Ranganathan's fourth law is more focused on the information use and relation responding to the specifics of the context and particular aspects of engagement to make the situated interaction relevant and meaningful.

Fifth Law of Social Justice in Librarianship

FROM "A library is a growing organism" (Ranganathan's. Fifth Law) TO "Information institution situates its positionality in its privilege and is there to serve" [Time: which refers to the dates or seasons of the subject; Space: which relates to the geographic location of the subject].

- What To Do? Generate specific community-based (information-related) outcomes.
- How To Do? Develops tangible deliverables through participatory design and community-engaged processes.

A social justice interpretation of Ranganathan's fifth law is more geared toward accountability and responsibility of the LIS institution, organization, and individuals in honest "owning" of their past and current lapses to reflect authenticity, integrity, and sincerity in action and generate trust and positive relationships in the process.

CONCLUSION

This chapter notes key critiques of LIS to dismantle its White-IST roots and disrupt its dysfunctional legacy. Destabilizing the hegemony and predominance of its Anglo/Euro-centricity is of utmost importance for deconditioning us from this dark cultural inheritance, even while it continues to shape the biased values, notions, concepts, scholarship, and practices in LIS. In the process of entrenchment in the western world, this hegemony in LIS has also woven its strangling tentacles deep around the world in recent decades owing to globalization and neoliberal capitalism. For LIS professionals around the globe learn and replicate these limited understandings of privileged knowledge domains and poor information practices (e.g., neutrality, passive bystanders, disconnection from community dynamics, information-centrality, etc.) essentially because they emerged from western sources that are held in high esteem. A limited acceptance and adoption of social justice amongst majority of LIS constituents in the historical past and contemporary context is one unfortunate outcome of this reality within the defining of a short-sighted scope and marginal impact of the professions outsides its exclusive boundaries.

In providing an acknowledgement of these troublesome shortcomings and possible solutions, this chapter briefly highlights how Ranganathan's five laws of library science can serve as important milestones and stepping-stones to develop social justice laws of librarianship for greater impact and relevance. It is urgent for emerging LIS professionals to extend limited Anglo/Eurocentric notions of humanism surrounding librarianship towards integrating "action-oriented" initiatives. We also have to extend the social justice laws in librarianship further in their conceptualization and application for generating positive social change in moving toward sustainable growth in the modern world. It is key for the survival and development of the LIS field towards creativity and innovation in the face of competing interests and challenging territorial turf battles in the business as well as academic world (e.g., with computer science and engineering, business management corporate organizations, etc.). Social justice laws of librarianship can go beyond libraries and complement the vision of the iSchool movement that seeks to integrate interdisciplinary approaches in "harnessing the power of information and technology, and maximizing the potential of humans" via people, information, and technology coming together (Larsen, 2008). The social justice laws of librarianship (or information) can provide a new direction of relevance and possible value sought by the iSchools in extending their vision to make an impact at social, cultural, political, and economic levels via changing imbalanced systemic power structures in society.

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KEY TERMS AND DEFINITIONS

Anglo/Eurocentric LIS: The predominant privileging and pedestalizing of sources, canons, people, research, and practices in library and information science that trace their origins to North America and Europe within historical and contemporary legacies of a colonized and imperialistic world order.

Five Laws of Library Science: The five laws of library science developed by Shiyali Ramamrita Ranganathan in 1931 include: 1) The books are to be used; 2) Every reader has his book; 3) Every book has its reader; 4) Save the reader's time; 5) A library is a growing organism.

Impact: The actuality and possibility of the library and information science professions to make a difference in the everyday lives of people and generate social, cultural, political, and economic outcomes that are meaningful to them via information-related work.

Library and Information Science: Historically, library and information science had its roots in librarianship and has traditionally focused on creation, organization, storage, access, management, retrieval, dissemination, education, and use of information. The second decade of the 21st century is providing a renewed conceptualization of the library and information science professions as the field of information, articulated also in terms of the vision of the iSchool movement that seeks to integrate interdisciplinary approaches in connecting people, information, and technology coming together.

Shiyali Ramamrita Ranganathan: Shiyali Ramamrita Ranganathan (1892-1972) is considered the father of library science (or librarianship), documentation, and information science in India with his vast knowledge, direction, purpose, creativity, sensitivity, and vision for the growth of the intersecting professions in the country, and the world at large. Amongst his numerous achievements in library and information science, Ranganathan is most well-known globally for the five laws of library science, development of the first faceted classification (i.e., Colon Classification), and chain indexing for deriving subject-index entries.

Social Justice and Social Equity in LIS: A social justice and social equity perspective in library and information science leans toward strong activism and advocacy to support fairness, justice, equity/ equality, change agency, and community development via information-related work, with, and on behalf of all people, especially those considered on society's margins.

Social Justice Laws of Librarianship: The social justice laws of librarianship discussed in this chapter extend Ranganathan's conceptualization of the five laws of library science to identify new directions of contemporary value in making a potential impact at the social, cultural, political, and economic levels in external community settings. Each social justice law is structured in terms of the "what to do" (i.e., why) and the "how to do" suggestions for readers to actualize them in their own work environments. In this manner, readers can draw on these pieces together in helping them operationalize and implement the laws in their situational contexts while responding to the diverse circumstances and conditions they experience.

Social Justice Manifesto: This chapter in its totality represents a social justice manifesto to revitalize and re-interpret Ranganathan's five laws of library science as the "renewed" social justice laws of librarianship that can make an impact at social, cultural, political, and economic levels via changing imbalanced systemic power structures in society. The reconstruction of the social justice laws of librarianship are framed in terms of the "FROM" highlighting the original "TO" their new form and meaning.

Section 4
LAM in the Smart City

Chapter 17
Building Civic Engagement in Smart Cities:
Role of Smart Libraries

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ABSTRACT

Climate change, poverty, and economic inequality are some of the threats to civilization in today's cities. This has given rise to the development of smart cities as a solution to the threat. However, this smart initiative did not solve the problem. In the face of this predicament, in order for cities to maintain their position, civic engagement must be undertaken by involving citizens in finding a collective solution with the support of smart library. Cities cannot plan or position themselves effectively until they grasp and exploit the existence of the smart library. The chapter explores the practical application of smart libraries to civic engagement. It identifies smart library strategies for building civic engagement in smart cities. The chapter also identifies possible challenges to smart library initiatives in smart cities and makes recommendations.

INTRODUCTION

Society is constantly facing severe challenges in the 21st century, from climate change to poverty to economic inequalities. To address these urgent challenges and achieve a better and more sustainable future that leaves no one behind, governments, organizations, civil society and individuals must work together to do their part (Le Blanc, 2015). They need to keep up to date with the latest developments and contribute to civic activities; this commitment should be based on an informed and critical reflection on political and civic issues (Van Camp & Baugh, 2016). This process is called civic engagement.

Civic engagement is a broader term. It is not limited to political activity and involves participating in civil relations such as charitable community events (Gil de Zúñiga et al., 2012). The value of civic engagement in smart cities cannot be overemphasized. As Boukhris et al. (2016) reported, civic engage-

ment is considered an essential dimension for creating a smart city- a modern community model emerging from the rapid development of digital technology and innovation processes. This is supported by Gooch et al. (2015), who suggest that smart cities would concentrate on citizens rather than innovations, or better, as Desouza and Bhagwatwar (2014) suggested, use the ability of technologies to promote public participation by implementing technology-enabled participatory civic engagement platforms. In part, civic participation may be viewed as a product of awareness of the value of civic duties. Apart from serving as the pillar of an effective city and a prosperous future, civic engagement and knowledge have a bearing on vital civic qualities such that civic knowledge encourages democratic ideals, political activity, confidence in public figures and can shift attitudes on critical political issues (Coley & Sum, 2012).

However, the extensive scale and complexities of cities make many people feel helpless or inadequate and minimize the expectation that their actions will make a difference (Mulligan, 2014). This is not the case, though, as people's participation, both personally and socially, is key to resolving huge social problems (Swinburn et al., 2019). People may serve as agents of reform in their positions as parents, clients, workers, bosses, residents and elected officials. Their influence has an immense impact at the micro level, but people still can build influence at the macro level (Labrecque et al., 2013), which can be especially encouraged by technologies in smart cities.

Smart cities are a multibillion-dollar enterprise that aims to transform the way we live, function and sustain human communities on Earth. The development of information and communication technology (ICT) enables communities to apply new solutions to promote economic growth, improve people's quality of life, and make the community smarter overall (Anthopoulos, 2015). These municipalities will use innovative information, sensing, and networking technology to work more effectively, enhance urban services, and improve the lives of their people. Recently, researchers have increasingly concentrated on improving the social facets of smart cities: quality of living, public participation and engagement (Gascó, 2016).

Historically, cities in the developed world have been based on concepts of shared infrastructure and mutual interest. Moreover, while public/private collaborations have always been influential in the growth of cities, smart city technology expresses itself in a pervasive fashion that tracks and stores massive quantities of data. As these innovations become more ubiquitous in cities, the key question remains: who owns and benefits from the data generated by smart cities and their citizens? One solution is to make city data as accessible as possible. There is a new precedent for city councils to take the lead in incorporating technological and computational systems into governance so that people can conveniently access public resources and services on web-based networks. Although city councils are not solely concerned with data, computing, and hardware, there are broad and influential organizations working as smart city collaborators. If urban services, utilities and environments continue to offer growing possibilities for data collection, opportunities will be developed to learn and implement new solutions from these data.

If we want smart cities that are also equal cities, there must be civic engagement frameworks that connect people to the services that they help support, generate and maintain. It is crucial to have an atmosphere in which people have a chance to be involved in decision-making at the intersection of human society and livelihoods. In brief, we need to visualize the smart cities project and civic engagement inside them, just as we have been thinking about smart libraries for a long time.

OBJECTIVES

The major objective of this work is to contextualize the application of smart library to building civic engagement in smart cities. Other specific objectives are to:

1. examine the value of civic engagement in smart cities;
2. examine the relevance of smart library dimensions to civic engagement;
3. identify smart library strategies for building civic engagement in smart cities;
4. identify challenges of leveraging smart library for civic engagement in smart cities; and
5. recommend smart strategies to help smart libraries in building civic engagement in smart cities.

THEORETICAL FRAMEWORK

The Informed Social Engagement Model (ISEM)

The ISEM considers that individuals who are taught to think critically and reflectively about history, civic issues and ethics, will be better equipped to deal with similar incidents, both in society (Kwok & Selman, 2017). The primary purpose is to integrate three competencies; analysis of evidence, capacity for empathy, and sense of agency, with three epistemological content domain; ethical, civic, and historic. That is, social engagement results from the intersection of three different skills: a cognitive skill (Analysis of evidence), an emotional skill (Capacity for empathy), and a dispositional skill (Sense of agency). The ISEM forms a solid foundation on which to build civic engagement in society. The theory is amenable to smart cities. Smart cities can adopt and adapt the theory since its elements blend well with the cities offerings. Applying Smart library strategies to each element in the mix (analysis of evidence, capacity for empathy, and sense of agency) can create civic engagement in smart cities.

Cities and the Question of Smartness

The term "smart" in this context refers mainly to efficiency due to the use of technologies and to the automatization of processes to facilitate the working and everyday environment (Freyberg, 2018). Smart cities should be developed for and with citizens (Mora et al., 2017). As a result, citizen engagement processes through different channels and investments in human and social capital constitute a very important dimension of a smart city (Myeong et al., 2018).

In becoming smarter, cities are facing challenges that have surpassed the capabilities of their traditional institutions and methods of governance, therefore calling for increased collaboration between the government and other stakeholders (Mora et al., 2019). These challenges include economic, social, environmental, technical, service delivery, financial, governance and institutional Challenges. Aligned with an informed social engagement model, this perspective emphasizes the importance of pursuing societal development through civic engagement among governments, universities, research centers, businesses, and civil society (Selada, 2017).

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Concept of Smart City

A city, as an organism, consists of buildings, roads, subways, and other constructed environments, its natural environment in terms of topography, water, flora (and some animals), machinery, and residents and occupants. On this level, a city is viewed as a highly complex organism with a plethora of aspects that may be explored from numerous perspectives (Ahlers et al., 2016; Appio et al., 2019). This is reñected in recent literature that is understanding cities in terms of place and space and systems, structure, networks, ñows, and processes (Batty, 2013). As of 2016, 55 percent of the world's population lives in urban areas (Meijer & Bolívar, 2016). By 2050, cities will house more than two-thirds of the world's population (United Nations, 2018). This population expansion and geographic concentration presents both benefits and disadvantages. Urban agglomerations, for example, can offer efficiencies in the delivery of infrastructure and services depending on how they are built. However, they can also result in the exploitation of natural resources, pollution, and more significant inequities regarding the distribution of the benefits and costs of growth and development (Ahvenniemi et al., 2017).

The smart city concept, then, can be used as a direct response to these challenges (Chourabi et al., 2012). Smart city is still a fuzzy concept, having its origins rather in marketing than in science (Barth et al., 2017), and as a result, there is no broadly accepted academic definition for this term. For some, however, there are three conceptual dimensions of a smart city: technology, people, and community what means that a city becomes smart when "investments in human/social capital and IT infrastructure fuel sustainable growth and enhance the quality of life, through participatory governance" (Nam & Pardo, 2011). Similarly, Gasco (2016) noted that a smart city is a city that adopts a comprehensive view of the city and integrates a double perspective; technology and human development, to pursue a triple goal of improving the efficiency of urban operations, improving citizens' quality of life and development of the local economy while maintaining the environmental sustainability. It is the expanded use of information and communication technologies for managing the daily functions and physical environment of cities (Gil-Garcia et al., 2015; Ho, 2017). This makes the final goal for every smart city to improve citizens' quality of life and environmental preservation (Dameri, 2013).

Furthermore, to define a smart city, we broaden the usual technical definition of a computationally-augmented and sensor-enhanced to that of the sustainable participatory liveable smart city (Ahlers et al., 2016). On the infrastructure front, we recognize that a real-world smart city is a collection of many independent systems that are not all centrally managed by a municipality, as many independent services may make a city smarter. As a result, we consider a smart city to be an open ecosystem (Ahlers et al., 2019) that supports technical integration and collaborative open innovation as needed. In addition to technology and infrastructure, this allows us to focus on residents and participation/co-creation activities.

One of the more interesting approaches to smart cities is a knowledge-based conceptual vision of the smart city where people's information and knowledge are at least as necessary as ICTs (Negre et al., 2015). According to this vision, systems within cities have to adapt to hyper-connected citizens in an environment going through constant evolution similar to British "transformational government". One of the problems is that, unlike before, cities nowadays are ñooded with data coming from almost endless number of systems. These data carry knowledge, and smart cities are learning how to tap into it.

While this vast and growing literature has demonstrated the development and critique of smart cities in contemporary urban theory, there is great diversity in smart city initiatives worldwide. Cities exist in a world full of citizens with ideas and practices, and these citizens engagement must be understood relationally. Next, smart cities will be situated and contextualized within the civic engagement literature.

Civic Engagement in Smart City (SC)

The best cities to live in the world are not the ones with the most advanced technological layers, but cities that create an atmosphere where citizens, companies and government build a vital and sustainable city in close collaboration (Effing & Groot, 2016). In this regard, new interactive systems for the 'smart cities' are going one step further: they not only try to fix things and thus make the city function more efficiently, but they aim to encourage people to become proactive and engaged citizens (Foth et al., 2015). Various failed SC initiatives such as New Songdo in South Korea and Masdar in the UEA showed (Saint, 2014) that investing in technology immensely cannot deliver the desired SC system itself, and SC development should incorporate particular social dynamics into the system to be successful. In this perspective, the vital driver in SC initiatives is the engagement with all the stakeholders to specify the particular SC requirements and specifications and meet the needs of the residents better based on the particular city dynamics. SC evolves with ongoing brainstorm sessions by unravelling problems, opportunities, and requirements and coming up with practical solutions and innovative ideas within a concept of collective identity (Kuru & Ansell, 2020). This means a city where civic engagement is paramount.

Civic engagement is broadly defined as collective action and participation in the governance process (Dawes et al., 2015; Peterson, 2014). Encyclopedia Britannica (2019) defines civic engagement as a "broad set of practices and attitudes of involvement in social and political life that converge to increase the health of a democratic society." These practices are not necessarily political but do, in their sum, contribute to political functioning. This can involve volunteering, voting, attending community meetings, and participating in activities to foster change for the betterment of the community (Brabant & Braid, 2009). For example, this could include volunteering for a charity or political candidate and buying a product that supports a shared mission. By voluntary, this activity cannot result in a financial benefit. Recent work by Gil de Zúñiga et al. (2017) operationalized online political participation as activities such as signing/sharing an online petition, signing up to volunteer for a political cause, and starting a political group on social media site. Similarly, Dozier et al. (2016) operationalized online political engagement in terms of emailing elected officials, signing online petitions, and donating money to political organizations. Gibson and Cantijoch (2013) cast an even wider net when defining the construct and included factors such as citizen-to-citizen discussion and joining a political party online. Kahne and Bowyer (2018) stressed links between citizens' behaviours such as sharing material and engaging with others to discuss critical political problems in a new research studying political engagement among young people on social media platforms.

On its whole, civic engagement represents one's investment in her or his surrounding community. UNDP (2016) describes the following benefits of citizen participation in governance. Governments can benefit from citizens' ideas and get information about their needs and preferences for serving them better by utilizing civil engagement in the policy-making process. Citizens' ideas are potential sources of innovation and maybe catalytic in initiating entrepreneurial activities in the public sector. Furthermore, more public involvement in the decision-making process also means more public trust in the government, as civic engagement safeguards and defends public interest against clienteles' decisions. Moreover, civil engagement in policy-making makes the city leadership more transparent and hence, more accountable to the public and more legitimate in the eyes of citizens. Given the array of such benefits, city leadership should support and create conditions for civic engagement.

While citizens are often the implied beneficiaries of SC projects, they are rarely consulted about what they want, and their ability to contribute to making a city work better is frequently overlooked;

citizens must, however, be at the centre of any SC project's decision-making process if they are to benefit from the intended outcomes (O'Neill & Peoples, 2017). Citizens should not be treated as just some manageable elements; active citizen engagement in SC development and enhancement is the primary success criterion. To make cities truly smart for the future, we need to make sure that the technology is used to deliver things that people want and need and that add real value to how life is lived in these cities (Puiu et al., 2016) by engaging with citizens and focusing on the social aspect of urban life within people-friendly environments.

To summarise, civic engagement is generally not seen as a critical part of the improvement process, and SC initiatives make little or no attempt to gain insight or collect personal information from humans (O'Neill & Peoples, 2017). Effective and efficient human-based data collection, intervention and decision-making, should be the main driving force of SC, essentially to quickly identify the requirements of residents and cities, to meet urgent input requirements of low-latency real-time application via crowdsourcing and consequently to support proper urban development in various aspects benefiting citizens and the sustainability of cities.

Smart Library and Civic Engagement

The changing natures of the library will not only reflect that of the web but will also feature new attributes based on the uniqueness of libraries (Noh, 2015). A smart library is a hardware and software complex with a wide range of opportunities for searching and providing necessary information to virtual users according to their inquiries and requirements. Another definition of a smart library is a library providing interactive, innovative, informative, actual, changing and international (Baryshev & Babina, 2016). It is a sophisticated technology-enabled system that is totally committed to assisting library users in meeting their needs without the assistance of employees and without wasting their valuable time. These advanced technologies encourage more individuals to visit the library. A smart library also allows for remote operation of a library building's features such as automated doors, public access computers, and self-service kiosks. It is a system designed to assist library patrons. This system extends library hours and allows users to access library services at their leisure. The smart library concept has four dimensions: smart services, smart people, smart place, and smart governance. The smart library concept, on the other hand, does not represent a specific model or project, but rather a process, a way of doing things that is less linear, less structured, and more creative and imaginative.

Beyond access to technology, libraries also offer technical training to help improve residents' digital literacy (Goodman, 2014)and provide space and support that enable patrons to experiment with different technologies for their purposes, such as business development and civic innovation (Vilariño et al., 2018). Libraries have created a welcome environment that allows the public to access different resources, participate in activities, and interact with each other (Lenstra, 2018). According to Edwards et al. (2013), Libraries are still places where individuals gather to explore, interact, and imagine. Libraries can add value to our communities and serve as cultural centers for our patrons by being community builders, community centers for diverse populations, centers for the arts, universities, and youth champions.

Key Actors of Smart Library Making

Smart libraries have been led and often promoted by multiple actors. The key actors include:

1. **Central and Local Governments:** Governments direct new urban development projects and urban renewal projects in a broad scope by incorporating ICT facilities for citizens. Their role can be passive as a regulator or active as an agent or a developer. Governments inevitably invite private sectors with ICT skills and serve the public in their smart library making approaches.

2. **Interest Groups/Movements:** Several movements/groups have formed over the last several decades that share many of the ambitions of smart cities. These initiatives complement and expand the smart cities strategy. Civic technology, data for good, and public interest technology are three primary drivers that are reshaping the technology environment in which smart cities are developing. Civic technology is a global movement that combines open civic data, technology, and civic technology practises in order to establish new technology-based governing institutions (McNutt et al., 2016; Schrock, 2016). Civic technology brings together a diverse range of actors and constituents, as well as volunteer technologists. Civic technology is the application of digital technologies and social media for service delivery, civic engagement, and data analysis, and it has the potential to transform cities and the lives of low-income residents (Living Cities, 2019). Civic technology seeks to influence governance from the outside. It applies technological skills to challenges confronting governments and communities. It also makes use of communities' capacity to transform government. Data4Good is a movement that brings together data, volunteer data science and technology employees, and organizations that might benefit from such assistance in pursuing social and humanitarian goals (Jones et al., 2018). This frequently involves the collecting of citizen data, private data, and open government data. A more encompassing phrase for a series of citizen-led endeavours to create social change through technology is public interest technology. It is described as a field committed to utilizing technology to benefit public interest organizations and the people they serve. Public interest organizations have fought for decades to better the lives of the general public. They work on topics that affect our daily life, such as environmental protection, human rights, child welfare, and criminal justice reform. Electronic advocacy, online social movements, online organizing, and other actions that fall within the purview of public interest technology are only a few examples (McNutt, 2018).

3. **Librarians:** Librarians are the professionals that manage a library and offer various services such as reference, circulation, serial and technical services. For the success of a smart library, librarians must be equipped with the necessary technology to perform their duties. There is no library with a librarian; therefore, there cannot be a smart library if librarians are not involved. A smart building or place will only be an infrastructure if not manned by librarians.

4. **ICT Firms:** ICT firms are primary suppliers of ICT-related products. By their expertise in ICT, ICT firms overemphasize ICT solutions and attempt to enlarge the scope of these ICT solutions to larger geographical areas to the community, local, city, regional, national and even cross-national levels (H. M. Kim et al., 2021). In fact, current smart library initiatives in many cities have not been academically driven but industry-driven by ICT firms. In tandem with the increasingly growing significance of ICT in urban management, their role is also growing and expanding in the process of smart library planning. However, their focus is to incorporate their products into urban systems as profit-seeking stakeholder.

5. **Urban Professionals:** They liaise with many other urban professionals such as architects, surveyors, demographers, economists, and developers who contribute to the changes and plans for urban space. Urban planners coordinate the planning process and negotiate with stakeholders, including ICT professionals, developers, landowners, and residents. Most planning processes are driven by

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the public sector, requiring approvals and endorsement from the public authority (H. M. Kim et al., 2021). Another critical group of urban professionals is developers. Much of urban development is realized by real estate investment, a major role played by developers who directly invest or attract investors (H. M. Kim, 2020).

6. **Library Associations:** Several library associations are essential to smart library development. These associations ensure that library standards are met. They also ensure that members are treated rightly in society. Among such are the International Federation of Library Associations and Institutions, African Library and Information Associations and Institutions, American Library Association, and Association of College and Research Libraries.

7. **Residents and Patrons:** People are or should be the primary beneficiaries of ICT. Smart libraries should support coordination and collaboration for citizens. Growing significance in participation in the planning process pushes to employ ICT solutions that can support interactions between residents, public sectors, and ICT professionals. Patrons include all that uses the smart library directly or indirectly. It includes those that support the smart library.

Relevance of Smart Library Dimensions to Civic Engagement

Libraries can be characterized as social and technological-intellectual infrastructures, as well as critical components of a "larger network of public services and knowledge institutions, of which each library is a component" (Mattern, 2014). Their traditional duty is to acquire, conserve, and make available to certain local, academic, or other community books, journals, and other media. However, as an information service, they also enable individuals to communicate with one another, possibly becoming de facto community centres. According to the Pew Research Center, librarianship is still one of our communities' most trusted professions (Farkas, 2018). Therefore, they are vital for civic engagement in smart libraries.

Schöpfel (2018) acknowledge that the Smart library can be distinguished into four dimensions, i.e., smart services, smart people, smart place, and smart governance.

1. **Smart Services**: The foremost dimension can be described as applying smart cities' "spirit of innovation" to modern library services. RFID, mobile and wireless access, semantic web, machine learning, IoT, natural language processing, AR, or VR are emerging technologies in this model. Nonetheless, they are empty values if they neither assume interconnection nor the user is in the activity centre. The real usage assessment can include mobile crowdsensing to support smart mobility, library space usage, and access to library facilities (Stojanovic et al., 2016), agile management UX design, and personalized information discovery based on recommendations (algorithms). These services are vital for civic engagement as they connect users with their environment.

2. **Smart People:** For people to be "smart" means to profitably use new technologies and create smart intellectual capital to support smart economic and social development in their city. To include people in the smart city definition means driving the local and central government to invest in increasing knowledge economy and reducing the digital divide to obtain a higher digital response by citizens (Dameri, 2013). we can interpret this concept of smart people on two levels as follows (Schöpfel, 2018): Smart community and Knowledge production. The smart community comprises smart citizens, smart library services users, library personnel, skills, and job development. The library personnel is part of the smart people, for instance, when it comes to producing and analyzing information and data (data librarian). For Knowledge production, the library user or patrons

is a producer of knowledge or co-producer alongside other users and personnel. This phase helps users and librarians to work together to produce knowledge relating to civic matters

3. **Smart Place:** The third dimension relates to the library as a structure and a place. This dimension can be broadly defined as "smart environment" and "environmental monitoring." The place should be technologically and environmentally smart, allowing readers to sit comfortably and read intelligently (Padhi & Nahak, 2019). The "smart place" combines innovative characteristics from the green library and the "third place library" and describes the conversion of the traditional library building and operation into a smart place that contributes as much to the viable development as to the city's smartness. This enables patrons to work in an environment that supports cognition.

4. **Smart Governance:** Smart library require smart governance. Scholl and Scholl (2014) have raised a question of what information sharing policies are needed for enabling and maintaining smart governance. A shared, timely, and actionable information is quintessential for inter – and intra-governmental collaboration as well as for G2C and G2B interactions. Furthermore, such information-sharing requires human skills, like high-level technical and information literacy. Open government includes not only open information but also open innovations. A smart city environment means citizen-driven innovations and requires knowledgeable and creative human capital – so that all actors can play their role in a multilayer innovation ecosystem (Dameri, 2013). This idea is close to another concept – co-production, which in turn comes from understanding that small, local communities require a different approach than top-down bureaucratic management (Webster & Leleux, 2018). In general, the smart city is a concept that changes the traditional way of urban management by switching it from a top-down to a bottom-up approach through citizen empowerment (Webster & Leleux, 2018).

We have seen an increasing interest in employing smart city solutions to involve residents and allow them to directly participate in the co-production of services, laws, and policies in recent years. It goes well beyond online voting and consultations, often known as e-participation, and incorporates more creative techniques such as social media, living labs, citizen dashboards, maker spaces, and gamification. When relying so heavily on ICT in citizen's involvement, the voice of those digitally excluded (or digitally less savvy) can be lost. So smart cities introduce innovative participatory spaces where the digital and physical are blended together, and through which citizens, no matter what their level of ICT literacy is, can inñuence the process of shaping public policies and services. Furthermore, certain groups within society present a different level of interest in participation. Most notably, citizens from more bourgeois areas are more interested in stating or sharing their opinions and needs than those from less affluent areas.

Smart Library Strategies for Building Civic Engagement in Smart Cities

Smart library involves smart services often achieved through the union of technology, human (librarian) and services (reference services).

Reference Services: Reference services are crucial for civic engagement. This involves relationship building. The key to relationship building is engaging residents, meaning one must meet people where they are and not be afraid to work on a small-scale, individual basis. This allows community members to voice their opinions about what needs attention or improvement from their public services. This kind of interpersonal communication can be extended to local leaders, including government officials, school boards, law enforcement and other public service members, non-profits, local businesses, and religious

organizations. In the scenario of a smart city, Information literacy and community reference would be adopted.

Information Literacy: Gibson and Jacobson (2018) argue that all librarians are engaged in a teaching and learning process with their communities. Their professional education, which has provided them with a range of skills, including understandings of the authority of information, the development of search strategies intended to retrieve relevant and appropriate resources, methods for understanding the needs and expectations of groups of information users and of individual enquirers and principles for assuring the quality of information and information resources, fits librarians for this role in enabling civil engagement. Research from other contexts shows that education plays a vital role in shaping civic engagement (Doyle & Skinner, 2017). Tran and Yerbury (2015) showed how recent graduates used the information skills they had learned to assert their criteria on the outputs of searches conducted in their workplace; they were able to demonstrate and articulate their thinking, that is, their 'habits of mind' in the face of Google's so-called filter bubble. While at one level belonging to an individual, these' habits of mind' can be seen as shared knowledge 'within the community', whether students, employees or citizens (Rivano Eckerdal, 2017). Marsh and Yang (2017) go further, asserting that someone who is information literate should not only be able to find and evaluate information, they should be able to 'recognize weak arguments'

Figure 1.
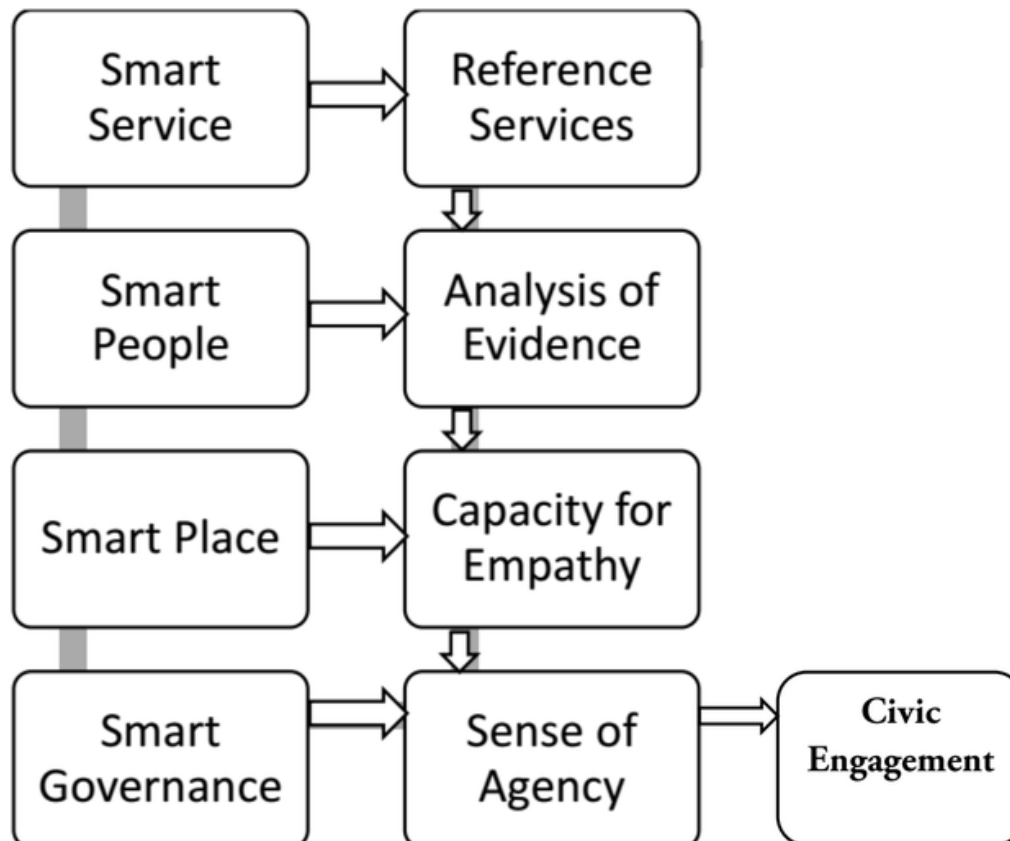
Community Reference: This involves sending librarians out into the community to work closely with groups and conduct onsite reference interviews, as needed, to discover and answer their questions. This process helps librarians stay informed on the community's needs, goals, and direction, allowing them to display their skills and services in a new way. However, in a smart library, technology would be adopted for community reference. This involves conducting reference interviews through social media and other electronic media. Joaquin and Greitens (2012) claim that a manifestation of democracy is citizens' involvement in policy deliberation, and advancement of their involvement depends on information technologies because trust and convenience with the government are the generators of accountability and participation. Through electronic collaborative platforms, citizens can engage actively in the policy-making process from any distance, without the physical interaction needed with public officials. Gil de Zúñiga et al. (2014) found that civic engagement features were positively associated with digital and social media use. Mack (2016) endorses social media integration for government-citizen communication: "Citizen engagement generally requires going where the people are rather than asking them to come to you". For instance, the communication can be sustained via the Facebook pages of a governmental organization, the users can present their ideas and recommendations regarding public policies, and surveys can be conducted with a broad audience. In one longitudinal study examining the intersection between online and offline political participation among young people, Kim et al. (2017) found that online participation drove offline participation in a sample of young adolescents, while offline participation drove online participation in a sample of young adults. Also, Smart library patrons would have the opportunity to respond to automated questions before allowing entry into the library (Galston et al., 2012). This will help to tap into citizens knowledge.

Various technology can be adopted to assist librarians to achieve civic engagement in a smart library. For instance, the integration of wireless sensing techniques and mobile devices, such as smartphones, enables next-generation lightweight people tracking applications for SCs (Lane et al., 2010). Also, librarians can leverage bring your own device (BYOD) for mobility of reference services, thereby reducing the cost associated with smart technologies (Adetayo, 2021). The is even more important as the world's internet population continues to grow significantly year by year; as of January 2019, the internet reached 56.1% of the world's population representing 4.39 billion people - a 9% increase from January 2018 (DOMO, 2019). In fact, 6.1 billion people have access to a smartphone, and more than half the world's web traffic comes from smartphones in 2019 (DOMO, 2018).

As we move forward in this digital age, we should take advantage of a smart library for civic engagement in smart cities. According to Negre et al. (2015), two networks of information overlap in a smart city: a formal information network between the internal or external entities and an informal information network between nomadic or sedentary citizens. As a result, the city's information and knowledge consist mainly of 1) a digital information system, 2) individuals who are processors of data to which they give sense under the form of information, and 3) a knowledge system that includes tacit knowledge of individuals and explicit knowledge. Thus, social infrastructure (intellectual capital and social capital) is an indispensable endowment to smart cities, which are "humane cities" (Nam & Pardo, 2011).

Libraries are traditional institutions responsible for knowledge organization, storage and dissemination. Moreover, they provide access to constantly growing, high-quality digital information and physical working, meeting and learning spaces (Mainka & Khveshchanka, 2014). Furthermore, "their capacity to facilitate and foster broader, more creative interaction makes them valuable for health, well-being and liveability of urban environments (Houghton et al., 2013). Libraries provide limited access to explicit

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global knowledge through databases, but at the same time, they can act as creative spaces allowing sharing implicit information (Stock, 2011).

Using citizens' local knowledge, experience, and collaboration could help local officials to obtain an overview of the status of city infrastructure and utilities through crowdsourcing (Benouaret et al., 2013) for mapping problems, effective urban management and further planning. This citizens' knowledge in smart cities can be both tacit and explicit (Negre et al., 2015). Access to explicit knowledge can be provided through information booklets, brochures, websites, documents, and other physical materials, while the transfer of tacit knowledge, in general, requires personal contact and socialization (Kumaresan & Swrooprani, 2013). People's needs, behavior patterns, opinions, and expectations can play an essential role in creating better living conditions (Negre et al., 2015).

Crowdsourcing is revolutionizing SCs, notably the real-time smartness of SCs by interacting with entities, citizens or objects. It is an effective technique that incorporates human intelligence and smart machines to collect disparate sensing data in pervasive environments (Kong et al., 2019) to support sophisticated applications. Schenk and Guittard (2011) defined three different components in every crowdsourcing initiative: (1) an organization that benefits, directly or indirectly, from the crowd's wisdom, (2) individuals who form the crowd and are responsible for generating the content, and (3) crowdsourcing enablers who serve as an intermediary platform, connecting these two. In this context, the organization component is urban government, the crowd component is people as members of an online community, and the platform is the technology that serves as a facilitator (Aitamurto et al., 2017; Zhao & Zhu, 2014). Proposing that a city's citizens contribute through crowdsourcing activities is a way to benefit from their field knowledge (Benouaret et al., 2013). The connectivity of devices enabled by the Internet of Things (IoT) can undoubtedly benefit society. Libraries that adopt digital infrastructure and provides services to its users can become a smart library. These include capitalizing on IoT, RFID, GPS technology (Sari et al., 2017). In crowdsourcing for cities planning, the crowd is asked to submit knowledge, ideas and perspectives. This input is then synthesized and incorporated as needed into the strategic planning process (Aitamurto et al., 2017).

Once a relationship has been established, the next step is to plan for community mobilization, which puts these valuable relationships to good use. Community mobilization is at the core of librarianship and seeks to connect residents with public resources (Stralendorff, 2018). Once smart city residents have been mobilized, they would gain analysis of evidence, capacity for empathy and sense of agency.

Analysis of Evidence: It is a cognitive skill that refers to how citizens understand, critique, discuss, and synthesize multiple sources of data, including contradictory information. This competency gives citizens a complex understanding of contextual reality, whether contemporary or historical and affects how they make informed decisions when addressing social issues. Analysis of evidence is focused on how Citizens: 1) analyze multiple sources of information, either supplied or needed, weighing their strengths and limitations; 2) synthesize the evidence while considering the individual, group, and system-level causes and contexts underlying intergroup conflict, and 3) make informed decisions based on this evidence.

Capacity for Empathy: It is an emotional skill that refers to how citizens feel motivated to consider and protect the well-being of actors known and unknown, similar or dissimilar in identity and values, representing different positions in a given situation or conflict. Their capacity for empathy affects the scope of their universe of moral responsibility or the people whose well-being they are willing to protect when considering social problems. Capacity for empathy is focused on how citizens consider the perspectives and well-being of a greater number of (individual or group) actors, including 1) the self,

2) one's social circle, and finally 3) individuals perceived as different, including groups they may not identify with or even hold in some disregard.

Sense of Agency: Sense of Agency is defined primarily as a disposition toward action referring to ways in which citizens understand: 1) the range of opportunities for involvement concerning social and civic matters, 2) the potential to effect change, and 3) the quality of different strategies they imagine using to most adequately address a given social problem.

Citizens' sense of agency affects the quantity and quality of their civic participation. Sense of agency comprises how citizens consider how actions are taken, address a given intergroup problem and develop potential barriers to achieving the action's aims, intergroup conflict, why they would use those strategies and potential obstacles to effectiveness.

Challenges of Leveraging Smart Library for Civic Engagement in Smart Cities

Funding: Maintaining smart library require financial resources devoted to this course. This is a challenge, especially in the face of budget cuts in libraries. The technology for urban initiative and the number of professionals to plan and implement it may be discouraging.

Data Privacy: Protecting patrons privacy is a foundational tenet of libraries. However, these innovations in smart library also raise concerns about the universal employment of smart city technology and the storing of massive amounts of data about citizens (Lake, 2017; Wiig & Wyly, 2016). Smart libraries will also need to grapple with the challenge of data privacy. The technology companies that help power and fund smart city initiatives have not always had a perfect record protecting patrons' privacy. That tension will likely need to be addressed (Crowe, 2020).

Security and Hackers: As smart technology use expands, so does the threat level to security. Vital data harvested by this technology may be prone to hacking. Moreover, those with nefarious purposes may use the data to undermine smart library initiatives.

CONCLUSION

To address the mounting risks of climate change, poverty, and economic injustice, smart cities must continue reinventing and innovating. This necessitates the introduction of civic engagement to better comprehend the dangers by incorporating citizens who are most affected by the threat. As a result, the incorporation of civic engagement in smart cities offers a one-of-a-kind transformative potential. Since libraries are created to connect people with services, places, and governance, taking a distinctive, original, and creative approach through smart libraries becomes vital.

RECOMMENDATIONS

Alternative Funding: Smart library requires smart technologies which are expensive to implement. Innovative and pragmatic librarians are increasingly considering alternative funding source to cater to any innovative initiative such as smart library and civic engagement. Sources of funds for libraries should go beyond the traditional dependence on parent institution or government to infopreneurship (Adetayo & Hamzat, 2021).

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Technology as Advantage: Librarians should harness, exploit, and take advantage of all types of intrusive and disruptive technology through acts of innovation and product differentiation (Adetayo & Williams-Ilemobola, 2021). The library needs to demonstrate superiority over other channels by influencing usage and manipulation of information and communication technology (ICT) products and services.

Outsource Security implementation: Smart Library need to outsource their security to expert security companies as they are familiar with the techniques used by hackers and fraudsters. Also, blockchain encryption technology can be incorporated to increase security in new applications.

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Chapter 18
Libraries, Digitized Cultural Heritage, and Social Cohesion of Smart Cities:
Model-Like LIS-Educational Implementations in Hungary

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ABSTRACT

Creating the complex service system of smart cities provides a new opportunity for the proportion and composition of available digital services to serve the satisfaction and the optimal functioning of society. Shaping the network services provided by LAM institutions is just as important in the social life of smart cities as defining the roles of public institutions. The authors of this chapter seek to identify how digital repositories can be effectively interpreted as modules of a complex service system. Five different module models are introduced based on the projects conducted by the Institute of Library and Information Science of Eötvös Loránd University in Budapest, Hungary. These modules, focusing on different aspects of user interest and activity, are suitable for strengthening social cohesion in the everyday life of smart cities by involving cultural heritage.

INTRODUCTION

The population of future smart cities can become an empathetic, socially responsible community of connected people if technological developments serve not only everyday and superficial community situations, but deeper cohesion as well. Numerous implemented and pilot projects prove that technology built on databases and network services transforms and facilitates traffic, communication, shopping, and the operation of households. To achieve changes that serve a deeper social cohesion, however, utilizing databases managed by libraries, archives, and museums (LAM) will be necessary.

Background

Smart city as a term was derived from the adoption and application of smart mobile services through practical data management networks for all components and layers of a city. (Gavalas et al., 2017) Internet of Things (IoT), big data, and cloud computing as background of smart solutions will help the cities and the citizens to deal with large-scale streams of data and complex services. The most studied aspects of smart city definitions are smart governance, smart transportation, smart energy and smart environment based on sustainability issues, but literature also provides research on other components such as smart people, smart economy, smart mobility, and smart living. (Kirimtat et al., 2020) From the perspective of Library and Information Science the smart city environment opens new possibilities for the LAM institutes to care for and disseminate cultural heritage (Angelidou&Stylianidis, 2020) and offers new opportunities to develop online library services and to rethink the role of library spaces in the functioning of a smart city.

The role of the library as a public space is already changing so it can integrate organically into the life of future cities by undertaking new, socially established functions. The library is a community institution present in all municipalities, and it has the most widespread network of all cultural institutions. It has the ability to reach all social classes, and its different types (national library, public library, academic library, school library) cover the needs of the widest possible range of social circles. Its services are available not only on site, but through mobile library solutions (e.g., library bus) and naturally, in the 21stcentury, remotely as well. The essential nature of the library was also revealed during the COVID-19 epidemiological situation, when the institutions provided numerous innovative solutions to their users. It is important to note that most library services are free, and it is one of its primary missions to reduce social inequalities and to ensure equal opportunities. With their programs, libraries contribute to the sustainable development goals (SDGs) of the UN by launching worldwide actions promoting healthy lifestyle, financial awareness, consumer protection, etc. The library has become more than a storehouse for books; it is a multifunctional and democratic public institution. It provides credible information in our world burdened by fake news, and it performs its functions by involving library professionals who work according to codes of ethics. It provides more and more services that are considered atypical (e.g., maintaining community gardens, supporting the launch of start-ups, organizing diverse events), which provide excellent opportunities for strengthening social cohesion by relying on this institutional network with millennia of experience.

Therefore, it is obvious that in an era of network services built on sensor signals and controlled by mobile devices the library will by no means remain solely a physical access point to the recorded knowledge of humanity (Fanea-Ivanovici&Pană, 2020). In addition to the role of the library space and the vision for services provided on site, it is similarly important that the knowledge repositories of cultural heritage

stored in libraries need to be integrated just as organically into the operation and services of future smart cities as the library itself as a physical space needs to be integrated into the functional map of cities.

Libraries are often pushed to develop their already existing databases due to manpower shortage and a lack of resources. They can remain less open to new functions and pilot projects which reevaluate the relationship between collection and reader. University education, however, makes it possible to experiment together with students at seminars by assessing international experiences and interdisciplinary connections, having an overview of a wide scope of established library initiatives. This is also necessitated by the fact that during education the focus is not on a specific library and its collection; the students are being trained for work needed in library systems in general. LIS is not only interdisciplinary; researching the past and the present are also essential parts thereof. Therefore, for the library services of smart cities there is a need for professionals who are familiar with:

- All fields of written, musical, and visual knowledge heritage from codices and old prints to the current digital publication market;
- The importance of communication channels spanning from the beginnings of the press, through the golden age of printed and then electronic news reporting, to digital media;
- Knowledge repositories and databases; services assisting research and information service;
- The organization of knowledge; the often philosophical and epistemological questions of classification, cataloging, and creating metadata;
- Information technology, digitizing, database building, and digital humanities;
- Online presence, social networks, and the possibilities of the IoT;
- Management, and the basic principles of business life and business law.

Future librarians who possess this complex set of knowledge will:

- Be prepared to welcome visitors in the libraries of future cities;
- By managing library collections and databases at high levels, effectively support researchers and professionals of science and economy;
- Possibly become initiators and maintainers of virtual services serving the information needs of future citizens in their home, or even during their commute or free-time activities.

Based on the educational work (Fodor &Kiszl, 2018) of the Institute of Library and Information Science of EötvösLoránd University (Budapest, Hungary), in this chapter the authors analyze as best practices certain web projects that could be launched tomorrow or even today by librarians worldwide, built on collections managed by them. While developing the digital literacy of the students, the researchers create model-like implementations of projects which could help

1. Integrate library collections of cultural heritage into the information service system of smart cities;
2. Social cohesion;
3. Social inclusion;
4. Civic participation.

During creating these small model collections consisting of a few hundred units easily integrable into an education program, the focus was not on technical execution, but on how discoveringcontent and

raising awareness of digitized cultural heritage could be fit into the life, habits, and daily information seeking routine of people of ourtime. The projects introducing the possibilities of digital humanities can serve as good examples for how a library, with the necessary programming background and by using a well-chosen sub-collection, can actively appear in the readers' lives and social media consumption habits.

Based on the researchers' experience, with the appropriate use of digital culture heritage databases not only the number of readers could be increased, but there are services integrable into the lives of the people of future smart cities which can help them become more tolerant, enquiring, and responsible citizens as well.

To create the collection projects developed with the students three aspects are monitored constantly:

1. The current methods and strategies of information seeking on networks;
2. Habits and characteristics of the use of social media;
3. The students' attitude, since it is a fortunate advantage that, unlike in the case of library researchers, in a university workshop future professionals and readers are present constantly, and that the students' feedback and opinions can be assessed.

Based on the lessons learned from these three sources, services developing digital literacy and built on digital cultural heritage need to be created and provided taking into consideration the following aspects.

1. **The experience of gaming and discovery:** The role of entertaining and playful content should not be underrated when it comes to information consumption. The students involved belong to Generation Z, who grew up among role-playing, computer, and mobile phone games, and some of them remain active gamers during their university years too. Both physical and virtual collections strive to learn from the examples of playful content and recreational activities popular nowadays (e.g., escape rooms and puzzle solving games). The need for gamification, and including the gaming experience in different ways in exhibition organization and planning the UX of online platforms and applications are current tools aimed at raising interest in scientific and cultural content.
2. **The experience of a common space:** Local history touches everyone because it adds a new and interesting dimension to our shared knowledge and everyday physical space. Local history information is popular in every community, moreover, it is easy to visualize, it looks impressive, and no scientific background knowledge is required to understand it, only familiarity with the given place as it is. Local history collections are in a unique situation in social media as well. If the collections are published on the web, there is a good chance that they will raise interest, and encourage users to do research, acquire deeper background knowledge, and understand connections. Citizen science is an important area of disseminating our cultural heritage, where libraries particularly need to account and plan for the enthusiasm of laypersons, and projects that can be implemented with their cooperation.
3. **Understanding the importance of time together and of history affecting our present:** Sport events, concerts, demonstrations: the value of social events that provide the identity of a community is increasing because more and more experiences can be gained independently from each other, in personalized circumstances, and at any chosen time. Instead of the simultaneous experience of radio and television broadcasts, we pick and choose from the selection of podcast and video streaming services, watching a season of a series within a few days. Most social events starting from childhood could be documented, and there can be data available which makes it possible to

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connect retrospectively, and to recall and strengthen the shared experience with other participants. There is unexploited potential left in discovering the experience of time spent together, and it can be expanded to previous generations as well: reconstructing the lives of parents and grandparents. Historical science has also discovered the importance of microhistory. To accept different eras and circumstances, the credible understanding and analysis of the past is essential. A new tool therefor could be playful research driven by personal interest based on credible – LAM – information.

For the integration of digitized cultural heritage into the everyday service environment, those collage applications (Kiszl& Fodor, 2018) could be suitable to which collections and databases can be attached if needed, as add-ons or plug-ins. Options for connecting to the users' information seeking behavior include the users':

- Movements in the city;
- Lifestyle;
- Daily routine;
- Entertainment and recreational activities;
- Communication habits;
- Creative professional and free-time activities (writing, creating, graphics and video tasks, posting).

In the model projects created during this university program the researchers aimed to explore the possibilities, and to analyze the possible connection points in processed collections. Almost all coherent digital sub-collections (e.g., the life's work or a project of a photographer; the legacy of an author; photographs taken in a city at different times) could be suitable for building a unique service thereon which goes beyond the functionality of a simple document repository or image database. The number of digital repositories is constantly increasing; not even those interested in the topic can keep up with all the newest availabilities, different platforms, and search systems. Reflecting on the described factors, however, digitized cultural heritage can become an integral part of the information service and cultural education system serving future citizens.

MAIN FOCUS OF THE CHAPTER

Levels of Smart Openness

The technological conditions of a complex service system operating in future cities are more or less already given: Big Data, Artificial Intelligence (AI), Cloud Computing, IoT. For the fulfilment of social requirements citizens will need to be open at three levels: (1) general consent, (2) individual decisions requiring up-to-date technical knowledge, and (3) cultural openness necessary for the creative use of services.

The general consent of citizens is required for the overall improvements of creating a smart infrastructure. In a well-functioning smart city, there will be automatic systems which collect data on their movements and activities. The optimal regulation of traffic, public lighting, and other similar services does not require personal decisions from citizens each day: the measurable data on their habits and activities are used to develop smart infrastructure and services, based on a general consensus. Hopefully,

it will be the responsibility of city authorities to use these data while observing personal rights and to monitor the developing and operating companies. Leaders will make decisions based on the approval from citizens and in a transparent manner, and these decisions will remain verifiable by the population.

Using and customizing personalized services tailored to the citizens' own daily routines and personal data (interest, lifestyle, relationships), however, require personal decisions, individual responsibility, and openness. This openness and willingness to learn are already present in those who use practical IoT systems and operate smart households. In order to use services facilitating life in the city, remaining up-to-date with technology will be just as natural in the 2020s, as it was to use smartphone functions in the 2010s.

The third level of openness required for involvement is cultural, which goes beyond practical knowledge and being up-to-date. Cultural knowledge, being educated, and social responsibility cannot be forced. It is easy to see that it is worth automating the energy-efficient heating of the house and making food orders depending on consumption, and that it is useful to optimize traffic, public transportation time tables, and green waves. But how can the deeper understanding of culture and society be integrated into a similarly developed system?

The Fragmentation of Cultural Openness

The driving forces behind technological openness were information technology manufacturers, and the market interests of the content and entertainment industries. Without them, the process facilitating the development of basic digital literacy competences, which has been ongoing since the start of Internet use, and is more or less managed and supported all over the world, would be impossible. This is the process which enabled the implementation of comprehensive systems such as electronic public administration or healthcare and pension insurance systems, and the appearance of smart city concepts. During each phase of this process, it was clear to the users why it is useful to understand the potential of technology. Those services and systems are missing or remained fragmented, however, which could link social and cultural traditions, and thereby could serve as a strong base for the citizens of smart cities as communities (Taylor& Gibson, 2017).

The desire for responsible social engagement, cultural and ethnic empathy, and civic participation are, of course, present today, and they use current technology in a natural, but fragmented manner. Tools for their organization could include social media and different communication applications, but the goals, and therefore, the target audience, are separate:

- Environmental protection and environmental awareness are important topics in social media. Actions are organized to protect green spaces in cities; trees can be checked and recorded in the tree registers of major cities; the journey of migratory birds can be followed on maps. The distribution of surplus food can be organized through mobile applications; environmental pollution caused by looking for parking spaces can be reduced.
- Fresh vegetables can be grown in community gardens managed online; people living in the same area can share information and keep in touch via niche social networks. Furniture and clothing no longer used can be offered to those in need; fund-raising events can be organized for strangers or acquaintances who are known to struggle in life.
- There are numerous opportunities to fight for our own environment; learn about traditions; or to understand, accept, and become familiar with the values of a different cultural background.

What could connect all these to form an organic system increasing social cohesion? Certainly not current technologies used haphazardly and on an ad hoc basis: social and messaging networks, voting systems, specialized applications, traditional content providing websites, and museum and library databases.

The cohesive power behind these social activities is still family heritage; upbringing; education; and, in adulthood, exploring social issues, culture, tradition, and science. Modern technology is adapted by users to their own goals, but specialized applications are rare, and there is no comprehensive, unifying concept in sight. It is well known that in the age of filter bubbles interests established by adulthood are practically unchangeable. We use fragmented activity and information opportunities based on our own interests: we watch films, read books, visit museums and exhibitions, or join city communities or civil society initiatives. The only way to fight this haphazardness is to reduce the lag of cultural and social digitization, and to increase digital literacy in the broader sense through education (Borowiecki& Navarrete, 2017).

Cultural and social digitization which could reduce this fragmentation could receive support from several sources: startups, online content services of the institutional networks of digital heritage, or state-funded digitization projects could all point in this direction; but the clear definition of goals coordinating these initiatives is most likely conceivable through complex concepts such as that of the smart city.

The expected novelties of smart cities are the services built on connections and new technologies available to anyone as infrastructure, which could serve users in a personalized manner and make them more effective in organizing their own lives, while also connecting them to other members of the community. Through the following examples, the potential of using the collections of libraries, archives, and museums will be introduced.

Smart Offers in the Light of Community Activities

The role of the LAM sector in the optimal operation of smart cities is primarily to facilitate cultural openness and increase social cohesion. According to the four-dimensional library definition of Schöpfel (2018), the developer of the smart library model, all internal and external activities of institutions need to be coordinated with the goals of the development of smart cities, which contain the environment of the institutions. The four dimensions (smart services, smart people, smart place, smart governance) serve the exact same purpose as the infrastructure of smart cities does: the cooperation of databases, software, population, and local companies and institutions in order to improve quality of life and develop social cohesion. The development of public services, which include the accessibility of information, goes beyond the walls of the institution in the aspect of smart networking, which is included in the dimension of smart governance. The social embeddedness and the future vision of LAM institutions are significantly affected if they are able to operate as part of a wider ecosystem, open to partnerships, and to appear in the everyday lives of users through network services. From all the possible attributes and development conditions of smart libraries the authors provide models for interpreting network activity.

For designing modules of a social-cultural service system about to be developed, experiences gained using social media can serve as a starting point. What captures the users' attention; which information sources do they follow; what content urges them to like, share, and comment? Social network activities serve as a model for social activities. There is an opportunity for creating secret groups based on niche interests; but it is also educational to see, from the perspective of social involvement, what is publicly disclosed by a user, and through which shared content, activities, and interests they wish to represent their identity to their whole social circle.

The Institute of Library and Information Science studies the social media presence of the LAM sector regularly. Experience clearly shows that popular content tends to provide insight into the private sphere of cultural and academic institutions, introducing a collection as a location; or they offer documents and pictures to share which can be linked to the current, common knowledge of the users. Besides the interesting quality of the documents, another condition for success is meaningful commentary: it should place the offered content in a comprehensible context; provide possible choices, links to visit further items; and convey the credibility of the source. To summarize: what gives value to all LAM content is that the complete collection appears in the background of the shared content either as a workplace and community space, or as a scientifically credible collection.

User activity can be hugely impacted by the depth of the offered content. Users publish their own identity; therefore, they instinctively protect it as well. Similarly to social relationships, a virtual connection network is heterogeneous too; the average user can expect numerous different perspectives from that of childhood friends, school acquaintances, and relatives, to business partners and colleagues. If users use social networks consciously, they will think twice about sharing any content which could distance them from a group of friends. Being educated and having a deep interest in any topic is necessarily a filter. Niche interests can be dividing: very few friends care. A subculture or ideological movement can also exclude users from their organically created social circle if they address it too often.

If we inspect the "depth requirement" of typical content gladly shared by users with their friends, then besides the flood of selfies, food photographs, blogs, articles, and news reports shared from websites, we find only one, albeit wide, topic which reaches the depths of the LAM knowledge repository: history and local history. Everyone is interested in the history of our current time and the past of commonly known places. The lack of chronological differentiation behind the online body of information of the web leaves everyone wishing for more to a certain extent; and the success of map and navigation applications proves that experiencing space through a network alone is not sufficient.

In the background of this phenomenon, the sense of security of the reader-writer who represents themselves on the social web overlaps with the mission of the library, which has direct connection to the source of knowledge. The conditions of risk-free shareability can be fulfilled by credible bodies of information; libraries and historic collections of photographs become limitless sources to share pairs of pictures and nostalgic reminiscing with the potentialto evoke a shared sense of wonder.

Besides providing opportunity for targeted searches, the traditional tools of the LAM sector were apropos (topical content, e.g., anniversaries) and surprises (unexpected content). By keeping track of anniversaries serving as apropos and creating thematic shelves, exhibitions, and presentations scheduled according to a specific plan, these tools could offer content that the users were not looking for originally. During developing their social media presence, institutions primarily focused on transferring these two motifs, apropos and surprises, to their content offer.

Besides apropos and surprises, which are still usable today, there will be newer, more targeted triggers available for the LAM sector in the complex service systems of the future. Activity and sharing options and content can be automatically offered based on the user's confidentially handled time and location data (e.g., reflecting to their birthday; coinciding times and locations in their calendar; current position). Created user profiles and activity histories may be suitable for comparing the interests of two users who confide in each other, aka social introductions, or for learning about and discovering a place or a service in advance, live, or retrospectively.

With our students, we focus on thinking together about the potential of a digitized collection. The chapter goes on to present five different models that reflect the different potential of collections and the

needs of smart citizens. In presenting the models, we will use examples of digital collections created at our Institute to show how user habits can be linked to the potential of different collections as a possible module of a smart city service system. Our examples are selected to represent the different types of typical collections managed by the LAM sector. Although today more and more collections are digitized with interactive features or as an application, their integration into a unified system requires a theoretical approach that can be helped by the five module model we present.

Where Are We? What Are We Doing? Module Model 1

Sharing a position, a current location, or a meal just served is technically a signal, a personal publication, information service. How could this need be combined with cultural-social information seeking? This urge can be traced back to the ancient need of pursuing knowledge: travelers signed their names in guest books, hikers carved their initials in rocks or sent postcards about their adventures. They informed each other of the fact that they had been at a certain location; they sought information and gathered knowledge about the place. The link could be sharing this need for information and knowledge.

When choosing a hotel or restaurant, it is already a natural step to check its accessibility, website, pictures, and opinions thereon (Magno& Cassia, 2018). While we are waiting for our partner, we browse the menu, read about the location's cuisine or history, or follow the QR code link found at the place or on a printout. We accept all these content offered even if we know that they are not necessarily true: the information was edited or created by the shop's owner based on a well-considered marketing strategy. Google Maps mashups, which became popular in the early 2000s, often aimed to publish real community knowledge and opinions on the restaurants or sights of a city. The authors were looking for the collection aspect of reality when they developed a database processing the history of how restaurants have changed. During project iTTiVoTT, they used a series of photographs from the 1990s as a starting point. The pictures capture the entrances of 500 restaurants a few years after the change of the economic and political system, during the first decade of Hungary transitioning to a market economy. Since the middle of the 2000s, they have been recapturing these locations every few years, and collecting information on the establishments. Comments can be left on the items; readers have shared numerous personal experiences and a lot of additional information. The collection thus created proves that a historic database introducing the continuous and often radical changes of a city can be built on one single series of archived photographs, and its development does not need much else besides taking pictures on the streets. By linking this database to the locations of establishments that changed function and became unrecognizable in a few years, current guests could share the archived photographs offered of their location, learn about the history of the city and the establishment, and inform each other the same way they do when they share food pictures and selfies from the same location: "I'm sitting here in Pub X, which used to be the legendary night club Y." "I'm waiting for you in Café Z; my father used to come here a lot, this is what the place looked like back then", etc.

It is important and worthwhile to archive the documents of a city's past even if the created collection is used only by researchers and the media. But if the archives and collections are successfully linked to the current citizens' present and their everyday lives, it could significantly increase the community's sense of identity. The local history collections of the LAM sector contain priceless treasures in cities with significant history. The material for this project is just a drop in the bucket, but the authors received further pictures even from the same photographer, taken of smaller shops' entrances before they were closed. From this collection an image database was created illustrating our changing shopping habits, and

introducing the alterations, transformations, integrations, and disappearance of different retail services; this could also be linked to user activities which nowadays mostly take place in shopping centers or online.

What is Hidden in Our Shared Past? Module Model 2

Obviously, not all collections of LAM institutions can be linked directly to our everyday lives, location, and activities, but entertainment and games are part of our everyday lives. As transfer medium, among LAM institutions museums are the frontrunners in applying gamification and adapting museum innovations to smart city environments (Borda& Bowen, 2019), but information service in libraries and archives could use this opportunity as well. At an exhibition organized either in virtual or physical space, engaging the visitor is not a problem. When designing a module integrable into a complex service system, however, it must be taken into account that gamified exploration can only become part of the users' everyday lives if its topic can be linked to the present and to the exploring gamers' lives. This link can be based on location, e.g., recreating old photographs, or exploring the locations of a popular piece of literature in a modern city (Heffernan &Chartier, 2020).

Stores selling new and second-hand books are unique features of downtown Budapest. It is not widely known, however, that even these popular and peaceful shops saw dramatic events during World War II. Compared to well-known, emblematic events, it can be an unexpected and powerful experience to be introduced to forgotten, unknown pieces of history. This was the intention of the Metropolitan Szabó Ervin Library by commemorating this historic period dramatically affecting our city with its exhibition titled the Holocaust of Books. The virtual version of the exhibition was created by the Institute of Library and Information Science. The banning and destroying of books written by contemporary Jewish authors and the closing, vandalizing, and ransacking of second-hand bookstores mostly owned by Jews can be connected to our present through numerous ties: most Jewish authors banned back then are well-known and popular; and in Budapest a great number of citizens preserve their Jewish heritage or are interested in the history of Jews. These shops selling second-hand and new books are, even after changing owners several times, still intrinsic and popular features of downtown Budapest.

The functions of a bookstore do not include overwhelming customers with information on events of terrorism that took place there 70 years ago, the same way a pub is not proud of earlier brands of previous owners. Discovering a network of hidden connections, however, can be an interesting and playful task even when it comes to heavy subjects. One of the navigation options of the virtual exhibition developed by the Institution is a map interface showing the network of relevant stores and locations. Based on this model, numerous connection networks of local history can be offered as an explorable and thematic layer in a complex service system usinglocation data. This way the everyday, well-functioning side of a city can gain deeper, more credible traits in the eyes of its inhabitants.

Another result of the authors' cooperation with the Metropolitan Library serves as an example for opportunities provided by facial recognition. We usually do not have extensive information on great-grandparents, but there could be a photograph living in our memory which used to hang on the walls of our parents' and grandparents' house, preserving the personality of a relative once known to us. When information is scarce, each new element that could supplement it is valuable, and inspires discovery and exploration. One of the authors' projects, publishing hundreds of photographs of unidentified people from the 1930s, was built on this same urge. The series of photographs received from the library is interesting in more than one respect. The pictures were taken in the city's most popular wavepool considered world-class at the time, the Gellért Bath; the photographer was the bath attendant. The pictures

themselves taken of wealthy citizens, artists, and politicians of that time in bathing suits provide a new perspective of the era and the people known from newspaper pictures. The truly exciting opportunity is, however, that besides well-known artists and politicians, hundreds of citizens of Budapest were captured in these photographs. The goal of this project was to publish the collection in such a manner that compels visitors, and possibly descendants among them, to explore. The pictures were organized according to several interesting themes: young people, the elderly, children, women, men, couples, friend groups, poses, hairdos, bathing suits, shoes, sandals, bags. Using background information, the authors created compilations of historical chronology, contemporary bathing culture, bathing suit fashion; and detailed information is provided on all identified persons. A collection was created which can be an exciting database inspiring exploration, even if no personal relationship is discovered; but the possibility of a user finding a previously unknown moment of their great-grandparents life is always there.

For the citizens of future cities, what makes the past interesting is the possibility to find personal connections with eras of which they do not have thorough knowledge. Historical science and traditional media are unable to present these eras in such detail which could provide us with opportunities to discover traces of our grandparents' or great-grandparents' life therein. Customizable online service systems, however, help us discover parts of the information stored in LAM institutions which pertain to us or our relatives, all this according to our own interests and in a playful, exciting manner.

Why Do Others See the World Differently? Module Model 3

The stratification of contemporary generations, the coexistence of people creating the community of the same city but having different cultural and social traditions will be a source of conflict in the future as well, while it also makes our life vivid and colorful. In the era of social media, it has become obvious that users have little time to understand complexity and connections. They rarely read long and thorough studies, or any nuanced publication. Due to the widespread use of streaming media, edited television, radio, and printed media cannot "force" content on recipients anymore. Besides pretentious content and clickbait, information seeking is defined by filter bubbles. It is important to fight against the effects of filter bubbles using the knowledge repository of the LAM sector, because this could become the greatest obstacle to the cohesion, permeable structure, and transparency of communities in the future.

Besides other sources of conflict known worldwide (migration; coexistence of races, ethnicities, and religions), Hungary and Eastern Europe are especially illustrative examples (Waechter, 2016) for the tension between contemporary generations. Starting from the 1990s, these countries transitioned to Western democracy and free market capitalism with practically no real experience. The earlier, Socialist system is often referred to as "átkos" (cursed era), and current politicians use it to discredit each other. Generations who have grown up since then have very limited, mostly negative information on the first half of the 20th century in Hungary, thus these schematic information do not only affect the perception of earlier generations, but also divide the current society. Understanding the worldview of different generations is primarily hindered by the fact that our current communication system is very much focused on the present. There is essentially no difference between two-year-old and twenty-year-old documents online; there is no chronological differentiation between pieces of accumulated information. Information can be searched and found just as easily on events from 40 years ago as on events from a few days ago. The authors with their students work on two complementary chronological projects at the Institution, hoping they would contribute to the chronological stratification of digitized knowledge.

During developing the digital edition of the life's work of Hungarian poet András Fodor (1929–1997) the authors, together with their students, create a complex system which provides an opportunity for those interested in literature to get a more nuanced understanding of the second half of the 20th century. András Fodor is not only known for his poetry, but for his literary translations, essays, extensive correspondences, and for the fact that he kept a detailed diary with daily entries from his teenage years until his death. He was an exceptionally active member of cultural life; thus his diary is in fact one of the most important historical and cultural historical sources of the era. Everyone is mentioned in the diary who attempted to alleviate the political situation of Hungary with art or culture in that period. They did not only digitize his life's work: they are building a complex system using everything from his photographs and art works to his diary entries, which is explorable either by dates, locations, names, titles, or by the topics of conversations recorded in his diary. Therefore, the target audience of this project is a lot wider than the circle of those interested in András Fodor's work: everyone fascinated by a – then living – poet, author, film director, theatre artist or musician, or by a certain location, piece of art, or event, or is simply curious about the events of that period, will find intriguing information in the database, while also having the opportunity to gain a deeper and more nuanced understanding of a past credibly recorded as microhistory and within context.

The co-project of this oeuvre has an even wider target audience. While processing the diary, each student is tasked with researching one specific day. In this chronology project, students prepare newspaper excerpts from contemporary, censored daily papers published on the day of the diary entry, and collect the events of the given month from chronological databases. They write an easily readable article of that month, filled with links; and they prepare static and animated visualizations of the news based on the photographs of people, events, and products mentioned therein. They use infographics to depict certain connections, which provides context to characteristic changes and events of the given month. The created project serves as an effective and concise overview of periods far from our time, but the project work proves that students find numerous points of connection with the time of their parents' youth: they discover countless films still on air, originals of remixed songs, and events and fashion phenomena still having effect today in the event and picture material, musical and object culture of each processed month.

The online content service activity of LAM institutions is mostly defined by the constant increase in the volume of digitized information and their analysis, the enrichment of their metadata, the linking of existing databases, and the application of artificial intelligence supporting the creation of links between texts and pictures. It should not be forgotten, however, that readers and users need to be found for all published information. For a society-wide effect, popular and compelling options need to be provided. Users only spend time on learning credible, nuanced information if they are processed and prepared. LAM institutions can reach wider circles than that of researchers using databases only if through creative work and with resourcefulness they develop services that are integrable into the complex service systems of the future as cultural-scientific modules of the infrastructure of smart cities.

What Do We Need? Module Model 4

Border areas between entertainment and work are traditionally untapped by the information service activities of LAM institutions. They could, however, link activities aimed at recreation and the exploration of interesting content to their knowledge repositories in the manners discussed above. Their traditional services, databases, and public spaces will remain available to those who want to acquire information specifically from a library, an archive, or a museum, or to those who enjoy spending time, meeting up,

or working in public spaces similar to libraries. These institutions could, however, invent services which are useful in other areas of everyday life. When we visit a museum, we rarely do so with the intention to purchase a new coffee mug. But the visit often ends in the museum shop, and a new mug or another functional object ends up in our home to remind us of pieces of art we have seen. For the institutions, museum shops are primarily marketing tools, and secondarily, sources of income. But it is important to note that, thirdly, they display and distribute the symbols and motifs of culture in people's homes (Belenioti& Vassiliadis, 2017). By expanding this function, valuables stored in LAM institutions could truly become public assets which are necessary for future citizens similarly to food, bus tickets, or clothes ordered online.

Nowadays, citizens using social media are content providers to some extent. They are the publishers of their own identity, who end up training themselves to be creative professionals, even if they do not post professional Instagram Stories or drone videos every single day. As the basics of graphics and publication layout services became part of general digital literacy, the need for material, clip-art collections, and image galleries increased as well. Not copyrighted parts of the LAM sector's image material could be integrated into the toolkit of a complex service in the same manner emojis and stickers are in current applications. The Institute of Library and Information Science created a database of neon signs in Budapest. Even designers took notice of the widely known symbolic value of the motifs of these advertisements, which had their heyday in the 1960s, and remained defining elements of the cityscape for a long time: the graphical map of the authors' project was created as a favor by a designer who since then has built her own portfolio on the shapes and typographical elements of neon signs. The results of this research conducted with students proved that this city history project has numerous points of connection with current visual culture, which seeks familiar, but fresh motifs in the past. In addition to positioning on a map the photographs of still existing neon signs, most of which are in poor condition, the authors also collected written records of initiatives aimed at their preservation; introduced the neon museums of the world; and created compilations on the manufacturing of neon signs and on craftsmen still working in this trade. The researchers conducted a separate background study on the temporary utilization of neon and its role in interior design. Identified neon signs were categorized by font, motifs, topics, and types of placement. The created database is valuable from the perspective of city history and advertisement history as well, but it can also be used as a categorized repository of neon signs with filtering options by those who look for the occasional sign or decorative graphics for publication design.

Another tool that could link a useful repository of graphic material with cultural-scientific values is the authors' collection of old postcards. Postcards, which became popular in Hungary in the 1900s, used a rich collection of motifs. They are either photographs or use graphic representations and figures. Libraries and museums primarily used photographic postcards to compile public collections, since these are contemporary images of local historic value depicting cities and historic buildings. The Institute's project differs from these collections because the authors undertook to publish two complete personal collections. The two owners are ladies from two successive generations; therefore, the two personal postcard collections provide an accurate and complete picture of the usual postcard correspondences, generally lasting until marriage, and of the relationship networks of the ladies of that era, and also of postcards chosen for different occasions and holidays.

The unique object culture or visual traditions of countries, or even cities, used to appear only in especially important works of graphic designers or in advertisement campaigns and designs important to the community. If LAM institutions publish their digitized collections also in the form of tools and

content necessary for everyday life, the complex service system of the future could be supplemented by modules strengthening the traditions and the cohesion of the community.

Into the Science: Module Model 5

Besides making accessible, passively offered catalogs and databases, LAM institutions could create an unlimited number of content services which are built on their digitized collections and are interesting in themselves. If someone is curious about Einstein's letters or the interactive website of the Rijksmuseum, they can research the topic in high-quality, user-friendly databases, and numerous LAM institutions are already available through mobile applications as well. The Institute, with the help of students, monitors and analyzes the newest digital repositories and content services, but there is no time to learn about all of them. In the complex service systems of the future, based on the user's place of residence, the local history collections and the oeuvres of well-known persons of the city could appear more heavily, but it is unavoidable that in the endless supply of information less obviously important or fascinating collections will disappear.

LAM institutions will still have the option to highlight lesser-known portions of their collections by using the tools apropos and surprise. This activity could be integrated into the information infrastructure of smart cities. It is important, however, that this information providing and recommending activity break away from the safe space of LAM institutions andadapt to the competition with the emerging supply just as creatively as social media does to information overload. What catches the attention of a museum visitor or library user could, unfortunately, get lost among everyday tasks and entertaining and useful services and information (Wilson-Barnao, 2017). Besides creating more organic connections described in the previous module models, the most important challenge for LAM institutions regarding future content service will be displaying the interesting quality of their sub-collections.

The authors created the online database of a seemingly unadorned series of books, which attracted only literary niche interest. The series Poesis Hungarica is compiled of short pamphlets which were published in small quantities; they were never available commercially, and they only contain the poems and cycles of poets active at that time (in the 1970s). The majority of the poems were later published in volumes with great numbers of copies, which were digitized;and on the covers of the pamphlets only the name of the poet and the title appeared.The collection is seemingly unworthy of digitization, and nothing connects it to the digital age; only book collectors sell and buy the copies. The aim of this project was to introduce to the visitors the little-known connection that this series was in fact the precursor to the very topical phenomenon of print-on-demand. The pamphlets were printed in a small printing house, with artistic typography, and they were created mostly for the published poets so they could sign them and gift them to their acquaintances and friends. This concept was considered revolutionary in contemporary book publishing, andit anticipated the increasingly common current practice that a physical book, image, or music carrier is a precious copy for fans and collectors, and it is more of a gift or a valuable object purchased to support the creator rather than a medium for multiplication. This collection introducing a pioneering venture is recommended for those interested in current self-publication practices and those engaging in the physical book vs. e-book discourse; but from the database the visitors can also learn about the interconnections within contemporary literature, and the oeuvre of the Hungarian librarian and polyglot, PálLipták, who published this bibliophile series.

A fine example of discovering hidden values and of content service becoming more important is the authors' project conducted in cooperation with the University of Theatre and Film Arts of Budapest. In

a higher education institution offering art programs, it is natural that an enormous and valuable archive is accumulated from the students' works, and this collection becomes especially valuable as time goes by and the then unknown artists become widely known by the general public. This is especially true for a university offering education on film and theatre: the written and visual documentations of student films and theatre performances become not only invaluable documents of their age after a few decades, but also recordings of the earliest attempts of popular theatre and film stars. As the first step of a cooperation planned to be long-term, the Institute digitized and published material spanning a decade from the archive of examination performance photographs taken on the university's own home stage operating as a public theatre. Together with the students, the authors tracked down, identified, and recorded the names of the people in the pictures, and their later career and appearances in different theatre databases. They linked theatre plays chosen for educational purposes with the online catalog of the university's library. The interesting quality and relevance of a collection can also be affected by unexpected events: six months after the database was created, the university was significantly restructured. As a result of this transformation, the university left its earlier premises, and the home stage, where every Hungarian actor have played their very first roles since 1958, does not exist anymore. Presumably, for years this collection will remain the only source preserving its history and memory in the form of archived photographs and linked information.

In the fifth module model of thematic content services chosen from the collections of LAM institutions, the task of creating an active connection between user and service falls solely on how intriguing the topic is. In the history of digitizing, many examples could be observed where digitizing projects considered valuable and important in LAM institutions lost their active connection to the institution after they were conducted and published. Although they remained accessible, no further developments were conducted, and no content services built on or utilizing them were launched. The number of their users tend to decrease over time, as the appearance of newer digital repositories divert potential users' attention. Digitizing is not the end goal; drawing and keeping the attention of users are, in fact, the new tasks of LAM institutions, and the condition for their success is to develop a new, cultural-scientific and technological openness in the institutions themselves as well.

Responsibility and Creativity

The system of LAM institutions is constantly adapting to the changing demands of our changing society. The way they provide their knowledge according to the needs of users can be seen as an organic expansion of the preservation of digital repositories and of the tasks related to digital curating (Post et al., 2019). But it can also be seen as a modern representation of the work of librarians, museum curators, and archivists, since the goal is the same as it was 100 years ago: content worth preserving needs to be made accessible. Considering the current information and content supply, social media presence is necessary to reach this goal. On the scrollable content walls of social networks, they need to compete with practically all users who share content. In the increasingly complex and customized information systems of the future, the display surface will continue to shrink, and the importance of content and service offers activated by sensory triggers (location, activities, dates) will increase.

Planning the module system of the cultural-social infrastructure is a responsible task, to which LAM institutions need to contribute. Personal data and private sphere need to be protected, and offering unwanted content should be avoided. Social cohesion and openness towards each other cannot be increased by information overload and by dumping services on users (Colding et al., 2020), while also forcing

values and content considered important by librarians, museum curators, and archivists. A networked society needs to be offered the shared joy and possibility of discovery. The common condition of the possibility of both playful and serious (targeted or research-oriented) immersion is providing access to scientifically credible content; credibility is the responsibility of LAM institutions, and also their appeal that needs preserving (Capurro, 2017). The new and current task is to recognize the interesting quality of collections and to prepare their digital interpretation according to the users' interests. Although the implementation of content services may require partner relationships (programmers, developers), recognizing and analyzing the potentials of collections can only be achieved within the institutions.

For the planning of content and service modules offered by the complex service systems of the future, higher education is an ideal incubator. The Institute of Library and Information Science serves as an example that an educational establishment of library science is necessarily able to provide the contacts and insight required for creative collection development (Coghill & Russell, 2017). Cooperation agreements with LAM institutions, professional internship offers, joint projects, and thesis topics create an organic link between the Institute and the practical work of LAM institutions. As opposed to a library, however, the work of an educational institution is not defined by a certain collection, workspace community, or the established needs of the users or readers. Teachers need to develop the knowledge to be imparted to future librarians based on up-to-date results of infocommunication and library and information science; and the needs and user attitudes of successive student generations are early indicators of the needs and perspectives of future library users.

Today, the need for games and creativity is inseparable from the everyday lives of young people. Students currently enrolled belong to Generation Z (Csobanka, 2016). They are the perfect testers and shapers of the viability of certain collection interpretations because they are critical, open, and not yet bound by professional commitment and loyalty to the collection they will work with. As digital natives, the presence of technology is natural to them; they consider becoming familiar with new tools and methods an interesting task. For many of them, however, computer games are important factors which play a defining role in shaping their mindset. They are very much familiar with the available mobile applications and creative tools. If they are not up to tasks requiring meticulous and difficult intellectual work, it is primarily due to the fact that it seems useless to them to do what an algorithm could perform instead, or what, in their opinion, could be more easily solved through digital services.

Besides the collection aspect of an incubator-like environment, an information technology approach is also necessary. The Institute of Library and Information Science of EötvösLoránd University operates within the faculty of humanities, therefore, the authors have insight primarily into the IT tool systems of humanities and library and information science. Digital humanities have been present in the educational program for years; database planning, visualization built on data organization, infographics, and cartographic representation all play important roles in developing the module models described above.

For designing visionary service systems, a fresh mindset, creativity, and an appropriate testing environment are necessary. Recognizing the potential of and analyzing credible, scientifically trusted collections are the responsibilities of LAM institutions. Interpretation and service provision require partner cooperation, and, in this regard, cooperation with the higher educational institutions of this field is also imperative in addition to IT professionals and developers.

FUTURE RESEARCH DIRECTIONS

The competition unfolding among future digital services can create a similarly uneven playing field seen between content offers shared on social media. With the lessons learned, however, we can be more conscious in preparing to integrate the knowledge repositories of LAM institutions more organically into the everyday lives of users. Models built on the projects discussed above need to be further developed in cooperation with LAM institutions. The practical base of theoretical research needs to be widened. The Institute of Library and Information Science of EötvösLoránd University entered into cooperation with the most prominent Hungarian libraries and archives, including the National Library, the Metropolitan Library of Budapest, and the National Audiovisual Archive. Colleagues of the Institute also participate as consultants in numerous national digitizing and collection organizing projects. Building on educational experiences gained in the Institute, the authors monitor studies of digital humanities and get involved in digital humanities projects built on collections of LAM institutions. It is especially important that digital services built on the collections of LAM institutions should serve researchers and professional users in the same manner they do the average user. The aim of further developing these models is to keep the social roles of LAM institutions intact while transferring them into the complex infrastructure of digital services.

CONCLUSION

The social cohesion of future cities is supported by complex IT services, in which the accessibility of digitized cultural heritage plays an important role. Accessibility is a key concept for LAM institutions, but its meaning and the conditions for providing it are constantly changing. In the age of smart cities, the expectations imposed on smart collections and institutions make it inevitable to adapt to the needs of the environment. The online appearance of LAM institutions provides a new opportunity for their preserved, digitized, and offered content to play an important role in society.

Nowadays, the customized information overload of social media takes away a lot of time from traditional information seeking, and from reading more nuanced, longer articles and works. The effects of established filter bubbles reinforce harmful social processes and undermine hierarchical value systems, including trust in scientific credibility.

The informational service system of smart cities can go beyond the commercial model of social media built on relationship networks, regarding both information seeking and discovery. In the service supply focusing on bettering the quality of life of a society, on the one hand, the knowledge repositories of LAM institutions have a greater chance to appear and a more level playing field, and, on the other hand, they are necessary if social equality, tolerance, and social cohesion are to remain characteristics of everyday life.

Through the content service projects conducted at the Institute, the authors modeled five different types of LAM services integrable into the complex service systems of the future.

Model 1: In the technological background of smart services, the IoT, sensory triggers (location, activities), and time data will have an important role. On the collections of LAM institutions, local history services can be built which contribute to the citizens' everyday lives with additions that are entertaining, interesting, and strengthen common traditions. They encourage people's commitment

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to their own environment, and give meaning to free time or waiting periods by providing credible, scientific pieces of information which can be safely shared as a community gesture.

Model 2: Content not connected to everyday actions can often be indirectly linked to enjoyable occasional activities, such as gaming, or the need to explore new things. The examples introduced projects which involve the user in discovering digitized cultural heritage made interesting by the personal aspect of a shared past. Customizable online service systems provide citizens with the opportunity to discover parts of the information stored in LAM institutions which pertain to them or their relatives, all this according to their own interests and in a playful, exciting manner; therefore, user and collection, and through the collection, science as well, can mutually help each other.

Model 3: The model of smart cities is one attempt to resolve the problems of our age. The difference between the cultural and social traditions of people living together, and between worldviews resulting from the stratification of contemporary generations will remain an issue in smart cities as well: anything the developed system intends to solve will occupy, and draw the interest of citizens. This model is illustrated by content service projects which provide nuanced information on the reasons behind and the background of generational differences, by the appropriate interpretation of digitized LAM content. Nowadays, there is less and less time to read serious, analytic pieces of writing. LAM institutions are able to offer services which provide quick answers, e.g., searching for a poem or an event, with scientifically credible context, and thereby they also offer the possibility of understanding connections.

Model 4: In the service system of the future, ordering pizza and booking a hotel room will probably still be present as they are today. LAM institutions are able to build services on their collections which provide useful virtual goods. They can offer motifs and visual elements for free, as public domain, or, in the case of copyrighted content, for reasonable fees. Projects used to introduce this model are fine examples proving that by the mediation of unique motifs and object cultures characteristic to a city or country, LAM can play an important role in this operation model by supporting social cohesion and commitment to one's own environment.

Model 5: Digitizing scientific and cultural heritage provides endless opportunities to introduce valuable sets of documents in an interesting manner. But exploring an endless number of freely browsable knowledge repositories cannot fit into the users' everyday lives and schedules. In the competition of collections and services worth knowing solely due to their interesting or valuable quality, without any specific topicality, the constant presence and creativity of LAM institutions are essential. The operation of this module could be similar to that of bookshelves placed in a library: it is the librarian's responsibility to recommend to the user content that fits their interest, draws their attention, or is currently relevant.

From the employees of LAM institutions, however, it is not only the updating of, and the competent choices related to the fifth module that require constant presence and smart activities. Digitized cultural and scientific heritage as content service cannot be separated from those who know and recognize their potential. Libraries, museums, and archives fulfilling their roles as community space is another guarantee for and condition of the social reputation of the LAM sector, in addition to being present among online service offers.

Artificial intelligence may help recording and quickly identifying connections, but recognizing the opportunities requires human associations, and fresh and topical perspective. Therefore, professionals creating and developing LAM modules for the service system of future smart cities should cooperate

with college-aged people, and educational institutions training future professionals in the field of library and information science and other related academic fields.

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ADDITIONAL READING

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KEY TERMS AND DEFINITIONS

Clickbait: (On the internet) content whose main purpose is to attract attention and encourage visitors to click on a link to a particular web page.

Digital Humanities (DH): Area of scholarly activity at the intersection of computing or digital technologies and the disciplines of the humanities.

Digital Literacy: Ability to find, evaluate, and compose clear information through writing and other media on various digital platforms.

Filter Bubble: Side effect of customization of news sources, interests, personal connections. Those getting their information from within their bubble do not encounter any opposing opinion, and their field of interest may narrow.

Generation Z: Typically, those born between 1995 and 2010; they are also called digital natives.

Infographic: A visual collection of imagery, charts, and minimal text that gives an easy-to-understand representation of any kind of information or data.

Print-on-Demand (POD): Order fulfillment method where items are printed as soon as an order is made, often without order minimums.

Trigger: An event, situation, sign that causes the start of something. In psychology, it is mostly negative; in information technology, it is neutral.

Chapter 19
The Role of Libraries, Archives, and Museums for Metaliteracy in Smart Cities:
Implications, Challenges, and Opportunities

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ABSTRACT

The concept of smart cities is gaining popularity within academic, practice, and policy circles. Smart cities are intended to be self-sufficient via cutting-edge technologies, purposive innovations, and inventions. However, while technology is growing at an unexpectedly fast pace, one of the essential components of smart cities 'humans' is lagging behind. The need for and scope of literacies to survive in smart cities pose challenges for their citizens. This study aims to identify the range of literacies required in smart cities and the roles of libraries, archives, and museums (LAM) in supporting citizen literacies for social and digital inclusion. The LAM sector is one of the major stakeholders in the digital transformation sphere. Therefore, the LAM sector must identify the nature of required literacies, the roles and strengths of other stakeholders, and the opportunities to increase its presence in the process. This study systematically identifies and addresses these issues through a conceptual framework process and proposes future research directions for the LAM sector.

INTRODUCTION

Two critical components of the digital age are digitalisation and digital transformation. Digital transformation is leading to the emergence of smart workplaces, homes, and cities. Smart cities aim to bring more ease to people by ensuring their legitimate rights within a sustainable environment through bespoke and user-centred technology (Sánchez-Corcuera et al., 2019). Smart cities are becoming a reality, and more and more nations have started experimenting with smart communities or smart localities on both small and large scales. This concept has evolved from a sector-based approach to a more comprehensive view that places governance and stakeholders' involvement at the core of strategies (Fernandez-Anez et al., 2018). Some emerging smart cities examples are Singapore (Bhati et al., 2017); Kemaman Smart Community, which is the first smart city initiative by the government of Malaysia (Mohd Satar et al., 2021); Vienna (Fernandez-Anez et al., 2018); and various smart communities in Japan (Granier & Kudo, 2016). A smart city is defined as a city that is performing well, in a forward-looking way, in terms of its economy, people, governance, mobility, environment, and living, and is based on the smart combination of endowments and activities of decisive, independent and aware citizens (Chourabi et al., 2012, p. 2290). According to this definition, the components of smart cities include infrastructure, technology, governance, management and organisation, economy, and people and community. This chapter focuses on the last component – people and community. It is also pertinent to reiterate the notion that individuals form communities and several communities together construct cities.

The people, as users and residents of smart cities, are a vital component but are often neglected by smart city developers because their prime focus is on technology, infrastructure, and governance (Arroub et al., 2016). People in the information and communications technology (ICT) age are already facing challenges presented by the digital divide and digital inequalities. However, digital divide discussions have moved beyond access issues. The digital divide domain now considers motivations, access, skills, and usage opportunities (Reisdorf & Groselj, 2017). In addition, skills are not limited to digital skills but include other types of skills or literacy that may assist in obtaining correct information at the right time. Literacy limitations influence users' ability to effectively engage with ICTs in their local communities and smart cities (Muthpoltotage et al., 2021). Therefore, it is necessary to understand the landscape of required literacies and the role of key stakeholders who can provide these literacies to the people and communities.

The emerging practices of smart cities and their modalities have attracted the attention of scholars from various disciplines, including education and libraries supporting digital literacies. Molnar (2021) argued that a separate educational policy is required to develop 'smart citizens' because education and skills training should address the challenges underpinned by multicultural and social interactions within the digital landscape. However, the progression of smart cities, where digital services and tools are being implemented to foster a range of goals, from more inclusive democratic dialogue to more efficient transportation, poses pedagogic and educational challenges for their citizens (Manchester & Cope, 2019). The fundamental questions for the people and communities of smart cities are as follows:

- What do citizens need to learn to be able to understand and live well within these environments as well as to shape their future development (Manchester & Cope, 2019)?
- How does literacy learning shift?
- How do individuals engage in their local environments for learning (Deshler et al., 2012)?

- What is the relationship between traditional literacy learning and new literacies (Deshler et al., 2012)?
- What pedagogical literacies are required in smart cities (Maclellan, 2008)?
- And, importantly, who are the stakeholders that will provide these literacies to citizens?

Scholars from diverse disciplines are trying to answer these interdependent and multi-aspect questions, and this chapter focuses on the types of literacies required for smart cities. It is hoped that this chapter will contribute to the understanding of the role of the libraries, archives, and museums (LAM) sector in smart cities.

Smart Cities and the Role of Libraries, Archives, and Museums

LAM, as trusted institutions for people, communities, and governments, can play vital roles in smart cities. Ylipuli and Luusua (2019) suggested that public libraries can act as non-commercial nodes of physical and digital spaces that can also take on the role of educating the public about the importance of urban technology and helping them to better understand these changes in modern society. In line with this suggestion, academic libraries offer services and resources to children, adults, and scholars that will lead them to become responsible citizens and lifelong learners. Borda and Bowen (2017) assessed the concept of smart cultural heritage services of museums to increase knowledge exchange and community connection with culture. Chianese et al. (2013) presented a case study of a location-based application for museums and art galleries to cater to the needs of smart citizens and, especially, tourists who visit smart cities. Also considered is the role of museums as providers of critical science literacies along with cultural literacy to their communities because this enables smart citizens to connect with their cultural heritage (Chinn, 2006; Hine & Medvecky, 2015; Rennie & Williams, 2006; Valdecasas & Correas, 2010). Schöpfel (2018) described four dimensions – intelligent services, smart people, smart places, and smart governance – where LAM has a role to play. Research has also explored the most recent information professional service models, including information commons, learning centres, and green libraries, which can contribute to educating people to be smart citizens (Gul & Bano, 2019; Jarosz & Kutay, 2017; Marty, 2006; Roff, 2011; Schöpfel, 2018). Yerden et al. (2021) surveyed librarians' perceptions of smart cities and their much-advocated benefits, such as equal and free accessibility to inclusive communities, and their capacity to bridge digital divides. Their study concluded that the library workforce needs to equip themselves with a diverse set of skills to have a role in smart cities. Mersand et al. (2019) also indicated that greater engagement and participation of members of the local community with literacies and learning opportunities result in greater economic development, and increased civic and legal understanding. After reviewing the literature, the authors of this chapter determined that LAM needs to understand the literacies required for smart cities and then position their roles. Accordingly, this chapter provides insights from the literature to identify the roles of LAM for metaliteracy within smart cities. A critical research question addressed by the authors is, Why is it important to revisit the information literacy role of LAM in smart cities? The authors also explored the following:

- What key literacies are required in smart cities?
- Who are the key stakeholders?
- What are the existing information literacy standards and what are the gaps?

There is a wide range of literacies required in ICT. We use the term 'metaliteracy' to cover all types of literacies because of a combination of multiple types of literacies. Mateliteracy is explained as "an overarching and 'unifying framework consisting the core information literacy competencies while addressing the revolutionary changes in how learners communicate, create, and distribute information in participatory environments" (Jacobson, 2015, p. 84).

This chapter is arranged into five sections. The first section presents a brief overview of smart cities, the literacies required in the age of digital transformation, and the role of the LAM sector. The second section provides details of the research objectives and the structured research design. The third section presents a discussion based on the thematic analysis of the literature. The fourth section provides a conceptual framework of literacies for smart cities and indicates that stakeholders should position the LAM sector in smart cities. The final section summarises the discussion, limitations, and future research directions.

RESEARCH DESIGN

The authors applied various thematic analysis techniques to develop a conceptual framework of the roles of LAM for the literacies required for smart cities (see Figure 1). The conceptualisation techniques facilitated the identification of the various variables and the building of a relationship between these variables. The authors first conducted a bibliometric search and analysis of the results to identify the emerging themes around different literacies (see Figure 3). This analysis led to a literature review to explore the various definitions of the different literacies. Finally, the researchers synthesised and discussed these themes to identify the variables and their relationships to propose a conceptual framework (see Figure 4).

Figure 1. Summary of data collection, analysis, and synthesising process
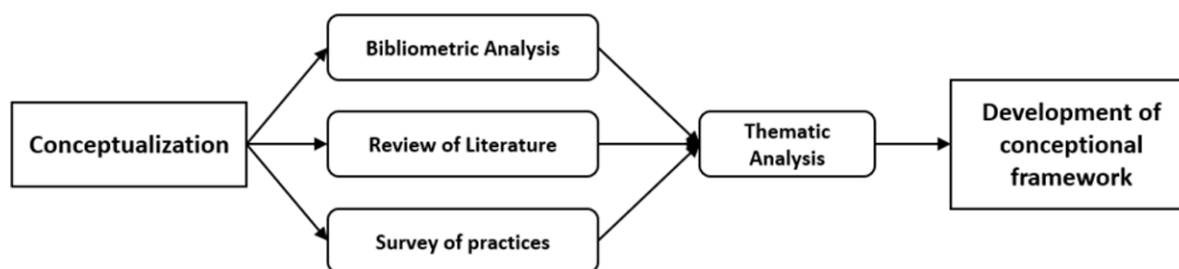
The search for articles was conducted in early 2021 and was guided by a systematic search strategy that included selecting a database, developing a search query, filtration, and, finally, screening. Data for the bibliometric analysis were collected from the Web of Science Core Collection on 1 June 2021. A total of 15,629 documents were found that were then filtered by language, document type, and subject domains (see Table 1). In the end, the bibliographic records of the remaining 8,747 documents were selected for the bibliometric analysis.

The data were collected from all subject disciplines except medical and health sciences. The selected subject categories included education, educational research, information science, library science, business, economics, computer science, communication, social sciences, engineering, science technology,

environmental sciences, ecology, linguistics, government, law, religion, history, philosophy of science, sociology, public administration, social work, arts, humanities, development studies, family studies, social issues, telecommunications, geography, literature, cultural studies, area studies, art, international relations, operations, research management science, urban studies, and rehabilitation. The reason for including all social sciences and humanities subjects was to capture the maximum scope and depth of the literature published on different types of literacies.

Table 1. Search query

Search Query	Filters	Results
TS=("digital Literacy" OR "Information literacy" OR "Big data literacy" OR "Civic engagement literacy" OR "Cultural competency literacy" OR "Cybercrime literacy" OR "Digital scams literacy" OR "Fake news literacy" OR "Financial literacy" OR "Scientific literacy" OR "Media literacy" OR "Digital health literacy" OR "Digital etiquettes literacy" OR "Social Literacy" OR "Civic literacy" OR "Gender literacy" OR "Legal literacy" OR "Hate crimes literacy" OR "Religious literacy" OR "Eco-Spiritual literacy" OR "Emotional literacy" OR "Political literacy" OR "Human Rights Literacy" OR "social literacy")	Total	15,629
	Year 2012–2021	12,449
	Language: English only	11,151
	Type of resources: articles, reviews, conference proceedings, book and book chapters	10,282
	Excluded subject domain: pure sciences, medical and health studies	1,535
	Studies included for analysis	8,747

The bibliometric analysis was run on the title, abstract, and author keywords using VOSviewer software. The authors focused on two types of analysis – the year-wise publication trends (see Figure 2) and thematic analysis (see Figure 3 and Table 2) – to present the landscape of research published on different types of literacies. Next, the authors searched for the specific themes within the searched results to identify the most relevant studies for the literature review. The authors searched 'smart city' or 'smart cities', 'libraries', 'stakeholders', and 'standards' within these searched results. Because of the novelty of these topics, there were not many relevant results. Therefore, the authors searched each term individually and, where needed, also conducted backward and forward searches. The authors also searched for the global standards and programs to guide stakeholders in providing information literacies training and discussed.

DISCUSSION

Types of Literacies

'Literacy' is a popular term for expressing a range of skill sets that citizen should have to survive and thrive in the digital world. There is widespread agreement among educators and the public about the importance of traditional and fundamental building blocks underpinning learning processes. The 4 C's of 21st-century skills are critical thinking, creativity, collaboration, and communication (Kivunja, 2015). Citizens in the digital age need to develop such skills as flexibility, initiative, social skills, and productivity. Humans also learn through various informal routes such as from other fellow humans, from the environment, and open discussion with peers during formal education processes. Explanations of the

various models of literacy also help us to understand the nature, breadth, and complexity of the literacy phenomenon. Street & Street (1984) discussed two models to encompass the diversity of literacy. The first is the 'autonomous' model of literacy, which formulates its argument from the assumption that literacy in itself autonomously affects other social and cognitive practices (Street & Street, 1984). Participating individuals can cultivate these capabilities, which would otherwise remain underdeveloped. This model takes literacy as a technology that possesses an exceptional capacity to change human societies and is the primary quality that separates so-called developed and underdeveloped nations. In contrast, the second model is ideological, which suggests that literacy practices are always embedded within a more extensive set of ideologies. In other words, literacy is not elevated as an autonomous technology that results in advanced forms of cognitive processing; instead, it is one of many ways to access learning (Deshler et al., 2012; Maclellan, 2008).

Figure 2. Publications over the years (2012–2021)
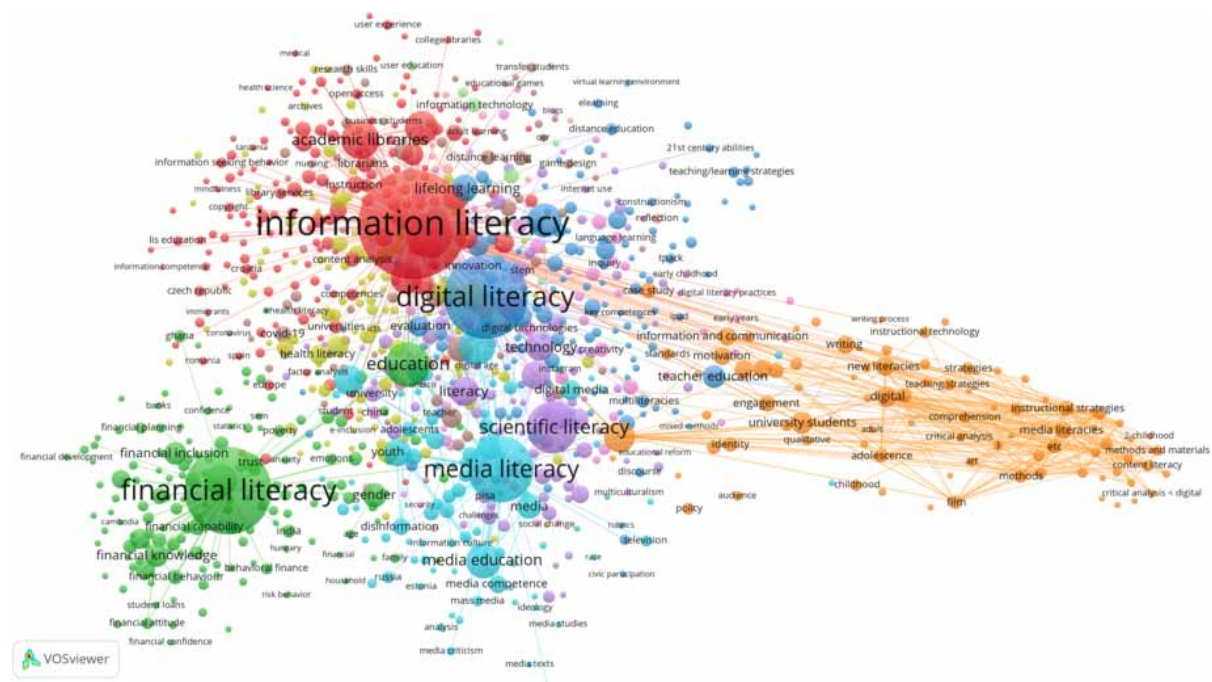
The thematic analysis of the literature resulted in a wide range of literacies (see Table 2); hence, the authors subdivided all these conceptual groupings into four sub-themes. The first subtheme consists of information, communication, and digital literacies. This theme includes digital literacy, social media literacy, data literacy (Prado & Marzal, 2013), digital media literacy, news literacy, news media literacy, content literacy, domain knowledge, new literacies, mobile information literacy, scientific literacy (Henriksen & Frøyland, 2000), text features literacy, content literacy, visual literacy (Rice, 1988), computer literacy, academic literacy, media information literacy, mobile information literacy, and digital storytelling. The second subcluster of literacies is a set of cognition and cognitive literacies that are required for critical thinking and decision-making. These literacies carry great importance within smart cities because they

serve as a foundation of the value and norms related to the smart community. The third set of literacies is related to socioeconomic aspects of smart cities, namely, debt literacy, financial literacy, legal literacy, copyright literacy, workplace information literacy, health information literacy, health literacy, digital health literacy, and e-health literacy. Finally, sociocultural literacies include family literacy, religious literacy, civic literacy, political literacy, news media literacy, and environmental literacy.

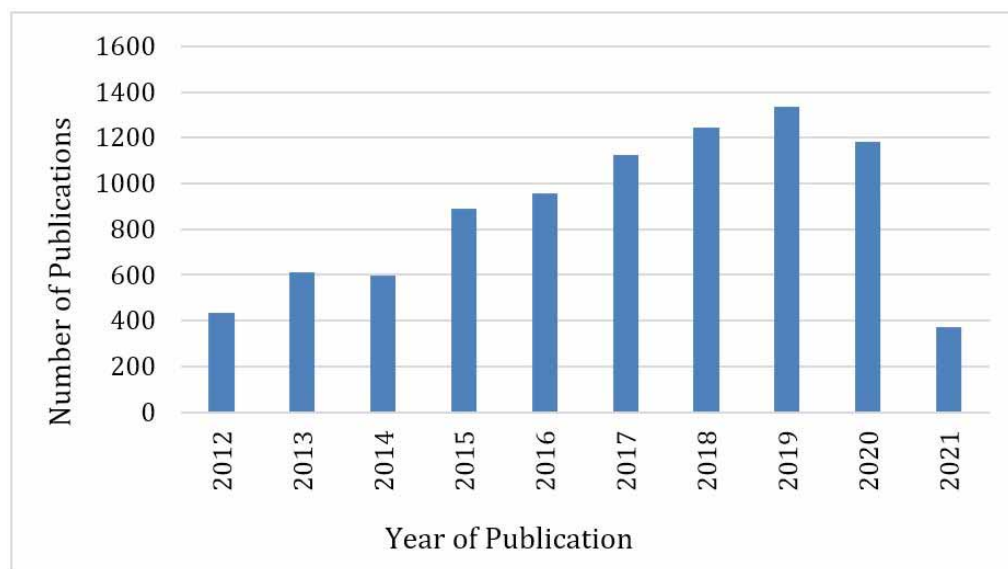*Figure 3. Thematic analysis of literacies*

Table 2. Thematic analysis of literacies and competencies

Main Themes	Subthemes and Emerging Keywords
Types of literacy	*Information, communication and digital literacies:* information literacy, technology literacy, digital literacy, social media literacy, data literacy, digital media literacy, news literacy, news media literacy, content literacy, domain knowledge, new literacies, mobile information literacy, scientific literacy, text features literacy, content literacy, visual literacy, computer literacy, academic literacy, media information literacy, mobile information literacy, digital storytelling
	Cognition and cognitive literacies: critical literacy, critical information literacy, critical digital literacy, critical media literacy, emotional literacy, transliteracy, disciplinary literacy, multimodal literacy, critical digital literacy, critical media literacy, data visualisation literacy, comprehension literacy, disciplinary literacy
	Socioeconomic literacies: debt literacy, financial literacy, legal literacy, copyright literacy, workplace information literacy, health information literacy, health literacy, digital health literacy, e-health literacy
	Sociocultural literacies: family literacy, religious literacy, civic literacy, political literacy, news media literacy, environmental literacy
Libraries, archives and museums (LAM) and information learning	*LAM:* academic libraries, college libraries, digital libraries, embedded librarians, librarians, librarianship, library and information science, archives, museums, library anxiety, library instruction, school libraries, teacher librarians, university libraries, public libraries, academic library, embedded librarianship, faculty-librarian collaboration
	Types of services and sources: library instruction, library outreach, curriculum integration, distance education, educational innovation, game-based learning, learning communities, libguides, lifelong learning, technology-enhanced learning, information literacy instruction, discovery tools, electronic resources, education and training, learning commons, online tutorials, open access, outreach, user, experience, virtual reference, learning management system
	Information learning: information behaviour, information experience, information needs, information poverty, information practice, information practices, information search, information research, information retrieval, information seeking behaviour, information services, information sources, informed learning, health information seeking behaviour, information fluency, information access, information credibility, information, ethics, information evaluation, information management, intellectual property,
Stakeholders	Teachers, librarians, archivists, museologists, students, families, Generation Z, millennials, males, women, young adults, pre-service teachers, adults, youth, elderly, teenagers, digital immigrants, children, primary schools, colleges, universities, governments, e-government, legislation, policy, care providers

LIBRARIES, ARCHIVES, AND MUSEUMS, AND INFORMATION LEARNING

The second cluster (see Table 2) on LAM and information learning contains keywords demonstrating several topical headings. This cluster also indicates several types of LAM institutions, including universities, colleges, schools, public and digital libraries, archives, and museums. That information and cultural heritage professionals such as teachers, librarians, archivists, and museologists are responsible for promoting user collaboration and engagement have been mentioned. Regardless of the type of LAM institution, every service conducts pro-learning activities, such as library instructions, outreach service engagement, digital services across wider geographic areas, virtual reference on a 24/7 basis, online tutorials, and virtual tours. To effectively showcase their learning resources, LAM institutions choose different products and approaches. For example, libraries provide library guides, access to a variety of discovery tools, and catalogues for e-resources. Museums are offering more and more virtual experiences, user engagement, and community collaborations, such as crowdsourcing, to support cultural literacy (Christensen et al., 2016; Jarreau et al., 2019). Similarly, archivists are focusing more on digitally enhanced, virtually accessible information and learning spaces (Carini, 2016) to increase archival literacy. The keywords showed a greater emphasis on learning through game-based learning, learning, and specialised communities, information literacy instructions, learning management systems, and lifelong learning. Despite the overwhelming thematic coverage within the scholarly literature, LAM still needs to understand the domain of learning within smart cities. The keywords under the learning cluster show the prominence of information behaviour, information experience, information needs, information poverty, information practice, information practices, information search, information research, information retrieval, and health information seeking behaviour. Schöpfel (2018) proposed a new model for smart libraries that includes optimising existing ICT services, a new integration approach of people learning through participation, and a governance model through networking. Jarosz and Kutay (2017) discussed the integration of archives into course learning and information literacy objectives mainly to support contextual subject knowledge and critical thinking. Carini (2016) emphasised the importance of primary source literacy, that is, archival literacy, for historical context and historical thinking, and the possibilities of library entities including archives in their information literacy training and standards. However, in the age of competition, it is not easy for libraries to fulfill the needs of smart citizens because these new service provisions face various practical challenges. Yerden et al. (2021) outlined some of these challenges faced by libraries in becoming effective stakeholders within smart cities. These challenges include limited budgets, limited technology infrastructure, and skills (Parry et al., 2018), lack of leadership, and staff turnover. The concept of smart cities falls within various subject domains; hence, it is also a scholarly challenge to claim 'precise ownership' of any aspect within the learning and education process. Like other subject disciplines and professions, libraries face resistance when signifying what their real contributions could be within future smart cities. In the case of e-learning, various scholarly disagreements have emerged within the literature, where various subjective disciplines claimed custodianship of the e-learning processes. Summarising the history of e-learning, Moore et al. (2011) distinguished between e-learning, online learning, and distance learning, while at the same time highlighting that the phenomenon of e-learning jointly belongs to various academic disciplines. Logically, such identity battles will also occur within the thematic sphere of information learning within smart cities because different educational agencies provide and support the learning process. Success and the prevalence of the e-learning factor have demonstrated that proactive stakeholder engagement and working jointly are fundamental prerequisites for achieving learning objectives.

Stakeholders

The stakeholders for the literacies are as important as the technology and platforms. The keyword analysis identified the titles of the various individuals and organisations that can be considered the stakeholders of literacy practices. The first is the people, who can serve as trainers such as librarians and teachers, and the second is a dynamic and random grouping of the trainees, who include people of different age groups – children, teenagers, youth, adults and elderly; different genders – male and female; and people categorised by their digital capabilities – digital immigrants, digital natives, Generation Z, and millennials. The stakeholders can also be identified by their roles, namely, family, parents, and caregivers, when they support other individuals in their learning (Arthanat et al., 2019; Goulding et al., 2018). Other types of stakeholders are organisations, such as educational institutions (Campbell & Kresyman, 2015), libraries (Martínez-Rocha et al., 2018), governments, and legislation, rules, and policies (Kemp et al., 2021) that ensure the provision of information literacy. Other stakeholders are policymakers, researchers, technology developers, and the tech industry (Nicolini & Haupt, 2019).

Competencies for Smart Cities

The emerging applications for smart communities, smart units, smart cities, and smart houses are offering promising benefits for their citizens. The thematic analysis of the literature provided keywords in abundance, which is why these numerous keywords were further divided into three themes: competencies, benefits, and challenges for smart citizens (see Table 3). These competencies include civic engagement (Cazden et al., 1996; Keegan, 2021), knowledge sharing, co-creation, social inclusion (Reisdorf & Groselj, 2017), human capital, well-being, and sustainable development through digital transformation of practices, processes, and policies. However, despite the well-articulated benefits of smart cities, the challenges for their people are a great area of concern for the authorities and policymakers. Awareness and training of both the information professionals (Liao et al., 2018; Marty, 2006; Parry et al., 2018; Peacock, 2004; Schwartz, 2018) and the users (Arthanat et al., 2019; Wolff et al., 2015) are the biggest challenges within these smart cities. The people living in smart cities require multidimensional awareness of the concepts, resources, rights, and responsibilities. There is a significant risk that if all these challenges are not well addressed, instead of the promised equality and inclusion, there will be a wider digital, social, civic, and financial exclusion for the citizens. Consequently, these disadvantaged smart city citizens will not be able to understand the fast-changing technological landscape and will be at risk of being left out. There are also growing threats in areas such as privacy, information disorder (i.e. misinformation, fake news, disinformation) (Damasceno, 2021; Qutab et al., 2019), information security, and cyberbullying. Various demographic, cultural, economic, societal, and geographical factors will contribute to this gap.

STANDARDS AND PROGRAMS FOR METALITERACY

In the LAM sector, information literacy provision is delivered through various programs for children, adults, and older citizens. This section discusses the authors' analysis of a few renowned standards and programs from the LAM sector, governments, and the tech industry for individuals and organisations. In 2011, the Council for Economic Education, USA, presented the National Standards for Financial Literacy to improve economic and personal finance education in six areas: earning an income, buying goods and

services, saving, using credit, financial investing, and protecting and insuring (Bosshardt & Walstad, 2014). Crisp and Dinham (2020) examined the United Kingdom's (UK) National Occupational Standards to identify the degree of workplace literacy and found more than 60 percent of the standards were vague regarding performance criteria. The American Library Association is a prominent stakeholder among libraries in guiding information literacy standards and frameworks. The information literacy standards for higher education and schools of the Association of College and Research Libraries (ARCL) and the American Association of School Librarians are widely used by libraries and academic institutions around the world (Ahlfeld, 2019). ARCL has also extended the use of other types of literacies, namely, visual literacy standards for higher education that can be incorporated into a general information literacy framework (Schwartz, 2018). The Australian and New Zealand Institute for Information Literacy (Peacock, 2004) provides guidelines for information literacy in six iterative standards. These standards include the skills of an information literate person, being capable of recognising needs, finding information effectively and efficiently, critical evaluation of information, construction of new concepts, and understanding and acknowledgment of cultural, ethical, economic, legal, and social issues surrounding the use of information. The CILIP Information Literacy Group (Coonan et al., 2018) focuses on information literacy in five key contexts: everyday usage, citizenship, education, workplace, and health. The Society of College, National, and University Libraries has presented an information literacy model for higher education based on individuals' core skills, competencies, attitudes, and behaviours (Bent & Stubbings, 2011). The International Federation of Library Associations and Institutions (Lau, 2006) has suggested a range of competencies for librarians as the key stakeholders of information literacy for lifelong learning.

Table 3. Thematic analysis of competencies for smart cities and challenges

Main Themes	Emerging Keywords
Competencies	Knowledge sharing, digital transformation, information literacy competency, digital literacy skills, academic integrity, academic performance, accountability, data management, digital competencies, faculty development, leadership, personal information management, scholarly communication, self-directed learning, serious gaming, cognitive ability, communication skills, decision-making, authentic assessment, financial decision-making, ubiquitous learning, virtual learning environment, consumer health information, active ageing, inquiry-based learning, problem-based learning, project-based learning, conceptual understanding, knowledge management
Benefits	Civic engagement, knowledge society, human capital, social capital, well-being, sustainable development, social change, social inclusion, public participation, community engagement, data protection, digital citizenship, digital identity, digital culture, digital practices, digital safety, intersectionality, social capital, co-creation, co-design, information culture, information society, participatory culture, social network, citizen science, global citizenship, self-efficacy, communities of practice, pedagogical content knowledge, knowledge transfer
Challenges	Awareness, inequality, public policy, regulation, multimodality, social exclusion, digital exclusion, financial exclusion, gender gap, globalisation, personality, persuasion, credibility, demographic factors, social injustice, socio-scientific issues, digital immigrants, digital natives, social responsibility, multiculturalism, multilingualism, metaliteracy, information disorder, cyberbullying, privacy, propaganda, identity, security, conspiracy theories, surveillance

GAPS IN THE LIBRARIES, ARCHIVES AND MUSEUMS INFORMATION LITERACY PROGRAMS

This research has conceived of LAM as a single sector but it certainly comprises different types of institutions, which serve distinct communities and user bases; therefore, significant variance exists within the objectives of information literacy products and services within the LAM landscape. For example, in the UK, school librarians have to conduct library periods for students but their contributions are taken

as being in the area of literacy support (Merga, 2020). In some countries, school libraries hire teacher librarians, thus emphasising teaching qualifications and skills as an essential requirement for this role. On the other hand, Johnston (2015) argued that, in practice, school librarians serve as instructional technology specialists. This notion of technology teaching by librarians also conflicts with the role of IT teacher. Further, university libraries have to support advance-level specialist teaching, learning, and research. Information literacy at the university level is fundamentally different because it deals with concepts such as academic freedom, plagiarism, copyright, and open access. Wang et al. (2021) outlined the diversity of duties and role profiles for instructional librarians within universities. It is evident from the scholarly literature that libraries offer contextualised information literacy for their users; therefore, claiming the ownership of lifelong learning support would require a new generation of library workforces who could deliver this gigantic task.

Table 4. Types of standards and programs offered by different organisation on metaliteracies

Organisations	Type	Standards and Programs	Scope
Council for Economic Education	Government	National Standards for Financial Literacy	Financial literacy
United Kingdom	Government	National Occupational Standards	Workplace religious literacy
American Library Association	Library association	Association of College and Research Libraries standards and frameworks: Visual Literacy Competency Standards	Higher education information literacy
		Information Literacy Standards for Science and Engineering/Technology	College and research libraries
		American Association of School Librarians Standards Framework	School information literacy
CILIP		Information Literacy Group	Information literacy for everyone
SCONUL		SCONUL Seven Pillars of Information Literacy	Higher education
Australian and New Zealand Institute for Information Literacy		Australian and New Zealand Information Literacy Framework	Information literacy for everyone
International Federation of Library Associations and Institutions		Information literacy for lifelong learning by Information Literacy Section	Information literacy
Google	Tech industry	Digital Responsibility The Applied Digital Skills	Digital literacy programs
Facebook		Digital Opportunities Bullying Prevention Hub	
Microsoft		Hub Online Safety Microsoft YouthSpark	

In recent decades, public libraries have served the wider communal audience by offering training and support in various areas, such as employment support services, IT and numeracy skills, language improvement skills, reading clubs, reading clubs related to health and well-being, support for the older population to cope with mobile technologies and support for school homework. Smith et al. (2020) ar-

gued that the diversity of information literacy objectives is one of the stressors and burnout predictors within public library workforces. Reduction in funding across the public sector in different countries has also resulted in thin capacity within public libraries. Winberry and Potnis (2021) advised that purposeful partnerships between public libraries and other institutions and agencies are essential to generate social innovations and lifelong learning support. A review of the literature on libraries establishes that the wide-ranging and core information literacy offer is impossible to deliver by a single library. Various examples can be cited. First, training on mobile technologies could be offered within public libraries for the older community, but such training is not normally offered by college or university libraries. This means that it is automatically assumed that all of the younger population are mobile and technology savvy. Such assumptions on their skills level can be easily challenged within multinational and multicultural contexts, where different segments of communities have shown different behaviours in using technologies. Moreover, such training is not just about using the technology but also about critically evaluating the nature of the information.

Saunders et al. (2017) highlighted that significant gaps exist within information literacy outcomes among students. Such research confirms the notion that the level of achieved skills can vary significantly following library-delivered information literacy training (Chinn, 2006) because teaching methods, content, and the quality of the resource person, as well as access to learning resources, can vary, which affects the information literacy outcomes. Literature on information literacy within libraries also outlines that huge perception gaps exist between scholars and practitioners on information literacy programs. Various studies have highlighted the gaps within information seeking and information literacy programs of libraries, museums, and archives, which include standards, staff skills and technology innovation (Borda & Bowen, 2017; Julien & Williamson, 2011; Parry et al., 2018). Therefore, it is inevitable that information seeking behaviours should also be investigated comprehensively before devising any information literacy programs within smart cities. It can be concluded that to achieve lifelong information literacy skills, a macro-level analysis of smart cities and their educational opportunities is essential because outcome gaps exist in the LAM sector for genuine reasons, such as fluctuations in resource provision, the skills sets of the library workforce and the specific operational contexts of libraries.

DISCUSSION AND FUTURE RESEARCH DIRECTION

There is a great diversity among literacy researchers' definitions of the concept of literacy. The academic theories on the new literacies, multiliteracies, and metaliteracies (Koltay, 2015; Schwartz, 2018) have been widely discussed in the literature. The concept of multiliteracies refers to the belief that individuals in a modern society need to learn how to construct knowledge from multiple sources and modes of representation (Deshler et al., 2012). The authors of this study found some significant aspects from the thematic analysis of the existing literature that can help us to understand the role of LAM within smart cities. These include:

1. A wide range of literacies cannot be explained with the notion of information literacy. The authors suggest using the term metaliteracy or multiliteracy instead. This suggested change to the terminology will facilitate LAM professionals to expand the horizons for prospective implications.
2. Inevitably, the LAM sector will face competition from the technology and entertainment industries within smart cities because most communal, educational, and operational activities will be

conducted through digital platforms. At the same time, this is a great opportunity for the LAM sector to position its future role to survive and thrive in smart communities and cities. There is a need to extend this debate by identifying the types of required literacies for the various members of society.

3. The stakeholders, as identified within the scholarly literature, include trainers, trainees, organisations, and policies. Some other possible stakeholders are the technology industry, social norms, social media, and socioeconomic influences. There is a need to explore this area and, after a thorough impact assessment, to identify the stakeholders, clearly defining their roles and their responsibilities within the topical area of metaliteracy.

4. The literacy needs of smart citizens will remain unfulfilled. The concept of high performance by digitally proficient individuals in smart cities has been widely discussed. However, authors need to recognise that the needs of digital immigrants will be different from the needs of digital natives and Generation Z. The digital native generations are proficient in the use of technology, but this generation may lack understanding of the values, norms, and social implications related to productive technology use.

5. The literature provides guidance on the role of LAM in smart cities and the potential advantages and challenges for libraries. The topical scope of this literature needs to be expanded as the notion of information literacy is evolving with the fast-pacing ICTs and smart cities will require the policy parameters to ensure the required metaliteracies competencies of citizens.

6. The standards and training programs offered by the LAM community also need to be revised to meet the needs of smart citizens, smart communities, and smart cities.

7. LAM, as a sector, is experiencing an unprecedented transformation from print-driven library services to digitally compatible resources and services. The popularity of the online resources within libraries has significantly affected the service models, and depending on the sector, libraries currently offer a hybrid library service model, through which a variety of clientele are being served. More research is required to scholastically establish which broad LAM service model can effectively contribute within smart cities.

8. Partnerships and joint working arrangements with other stakeholders have helped LAM as a sector to achieve its objectives. More research is needed to establish credible evidence on what types of partnerships are required, what the best-practice case studies are, and which principles and takeaway lessons can be carried forward into the scholarly literature on smart cities.

9. The concept of smart cities fundamentally falls into the remit of interdisciplinary research; hence, future research collaborations among scholars and practitioners from different disciplines will facilitate future research directions to answer the interwoven and multilateral research questions. Scholarship within a single academic discipline can answer some of the questions but cannot suggest a more comprehensive response to future research questions.

10. It should not be assumed that unlimited financial budgets will be available within smart cities for the LAM sector. More research is required to determine which service models will be financially viable for resources and service provision. Currently, the LAM sector is facing financial challenges because of the increasing costs of online educational resources.

11. An increase in cyber warfare and privacy breaches within security-proof technology products has shaken the public's confidence in the transparency and privacy-offering capability of modern technologies. More research is required on the future skill sets required to obtain the trust of smart city citizens.

12. Society perceives libraries as learning support units, collaborative learning spaces, creativity-boosting avenues, and custodians of legacy knowledge. In this regard, LAM is considered a support service and not the lead service in offering education or learning. More research on what types of support-oriented tasks can be delivered by LAM within smart cities will provide useful insights.

13. Service provisions within smart cities will be evaluated on the basis of service usage data, thereby unconsciously encouraging data-driven decision-making. However, the ethical use of citizen data is gaining societal recognition after incidents like Cambridge Analytica. LAM is considered the custodians of information ethics and values within society, thus can play an important role in educating citizens on data related rights, responsibilities, and ethics.

14. The concept of lifelong learning has various segments, phases, and levels in its life cycle; thus, it is a complex phenomenon. Any smart city policy with a single perspective may not be sufficient to commit to the cause of supporting lifelong learners. Future research on multiphase learning support by a single support service is required because, currently, LAM is catering to their clientele based on specific user segments and their skill levels. In smart cities, inclusive LAM service provision could be designed based on diverse age groups of varying skill levels. A simple, unilateral service provision cannot satisfy the divergent service needs.

15. Evidence-based education and research are required to prepare the future workforce for LAM to serve in smart cities. Stakeholders should be approached to have candid dialogues regarding which topical areas contain skills gaps and how these skills shortages can be reversed.

There is a need to explore the above-mentioned topical areas to better understand the constructs of metaliteracy and the roles that the LAM sector can play in future smart cities.

A Proposed Framework for Libraries, Archives, and Museums

The thematic analysis indicated a range of challenges for smart cities that require attention and are a potential area of interest for the LAM sector. Based on the results of this study, a review of existing research (Jacobson, 2015; Mackey & Jacobson, 2011), and the current practices and standards on information literacy, the authors have proposed a conceptual framework for smart LAM within smart cities. This framework (see Figure 4) contains four major topical domains, with related conceptual entities grouped within them. The four main topical domains are standards, technology, literacies, and partnerships. Within the first layer of the wheel diagram, these four domains reflect interdependence and interconnectivity. Each domain has subtopical entities representing different stakeholders, factors, or specific phenomena. The standards comprise three subconcepts: contents, multiple digital users, and metaliteracy.

Understandably, such topical entities can also be associated with further activities or subcategories, but those niche concepts could not be included in the framework. The standards domain encompasses LAM sector-wide standards agreed by the professional associations and bodies that formulate the basis of ethical positions. Translations of these standards into operational activities also surface legal questions and a wish list of the expectations of LAM for their stakeholders. Technology contains four subconcepts: information and communication technologies, creative technologies, educational technologies, and, finally, disruptive technologies. This categorisation of the technologies aims to reflect the different purposes and groups of stakeholders within the context of smart cities. For example, disruptive technology refers to those applications that can fundamentally alter routines. In contrast, creative technologies encompass the applications aiming to stimulate imaginations within smart city citizens.

The topical domain of literacies contains sociocultural literacy (Jarosz & Kutay, 2017; Stasulane, 2019), socioeconomic literacy, cognitive literacy, and ICTD literacy. This group of literacies aims to serve all smart citizens, keeping in view their diverse training needs and learning preferences. The topical theme of partnership groups together individuals, communities, organisations, and the tech industry. All of these subconcepts are interrelated and, by acting together, fulfill one significant component for the smart city citizen. The analysis of the scholarly literature on the selected subjective terms, the review of the internationally accepted professional standards, and the careful imagination of outcomes and competencies all contributed to the design of this framework. The explanation of the topical domains and subtopical entities are meant to be interpreted flexibly so that the framework remains relevant for various contexts.

Figure 4. A framework for smart libraries, archives, and museums
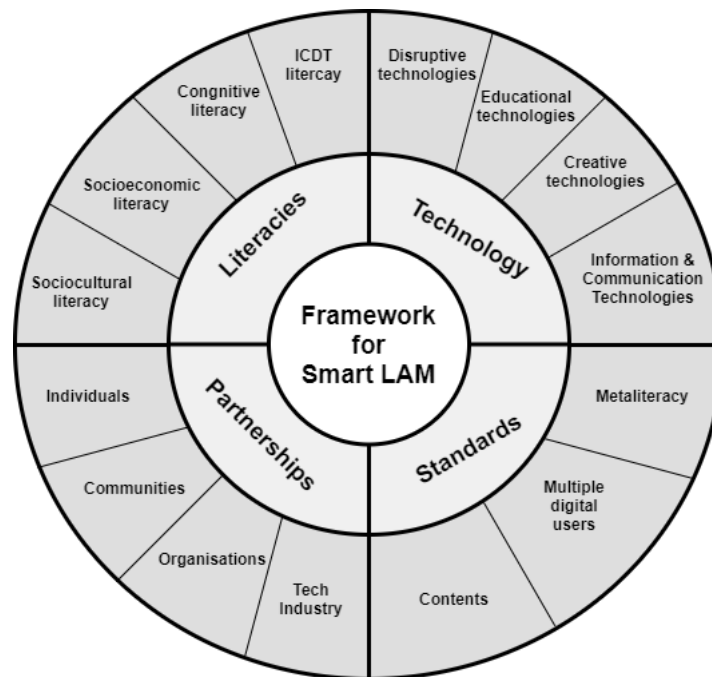
LIMITATIONS OF THIS RESEARCH

Following are the limitations of this research:

1. This research is based on a bibliometric analysis, which generated a wide range of concepts. It is not possible to encompass all the themes within one chapter; therefore, the authors took a holistic approach to explain overarching themes.
2. The parameters of the literature selection can always be questioned. Some criteria such as literature in the English language only can easily miss the global-level perspective. The widespread adoption of technologies in Asian countries can offer useful intelligence on smart cities. Scholarly coverage

of that literature may not necessarily be available in English. Future research with multilingual coverage may prove to be prudent.

3. Arguments against the evidence-based validity of the proposed framework are also beyond the scope of this research.

4. Scholarly evidence on information literacy provision, training outcomes, and workforce skills levels have been treated as a single unit, but the LAM service sector is designed to serve distinct objectives. There is a need to investigate the sector holistically instead of specifically. This seems relevant in the age of intuitional partnerships and growing discussion on the concept of the LAM sector.

IMPLICATIONS AND CONCLUSION

This research has provided an overview of the range of different literacies required for survival in smart cities and the roles the LAM sector can play in this regard. The digital transformation of society is like a larger ecosystem that consists of various entities, stakeholders, and processes. Each entity has a role to play, yet it also depends on other entities to co-survive. The LAM sector within a smart city is also an example of such an interdependent entity. This study aimed to initiate discussion among LAM professionals to identify the requirements of smart communities and smart cities and for them to revisit their roles and responsibilities. Topical areas of the framework have been kept generic intentionally so that this framework also remains relevant for non-LAM professions.

ssThe translation and implementation of scholarly theories in practical life, and the timescale required to reflectively refine them, have been an area of debate within academic literature. Various disciplines have extensively argued and duly highlighted the gap between professional theory and practice. Hatlevik (2012) suggested that the reflective and research skills of researchers, as well as practitioners, are the cornerstone in bridging the gap between theory and practice. De Neufville (1983) acknowledged that the gap between theory and practice will continue to widen unless practitioners start sharing their frustrations, problems, anomalies and reflective thoughts in scholarly literature and academics consult proactively with practitioners when designing the curricula for courses. A review of such seminal research suggests that working in partnership is essential if any subject discipline aims to solve current or future research problems within the academic discipline. Likewise, LAM as a sector should focus on boosting future partnerships within both literary and operational spheres, if it aims to have an impactful place in the future-facing concept of smart cities.

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Chapter 20
Smart City Technology and Civic Engagement in Ontario, Canada:
Case Examples From Toronto and Barrie

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ABSTRACT

As smart technologies become more integrated with daily life, vital digital literacy skills are necessary for citizens to engage with and benefit from their cities, local government, and economy. Libraries play an important role in mitigating the growing wealth gap in our communities, especially as it relates to opportunities provided by emerging technologies. With the call for smart city proposals in Toronto, Ontario, what role will the city's LAMs have in collaborating with these future developments? The Toronto Public Library (TPL), a trusted public institution, has a stake in implementing various frameworks and collaborating with government agencies in addressing public concerns around technologies that collect personal information for various purposes and ensuring that vulnerable populations are not left behind. Following an examination of the role libraries play in mitigating consequences of the digital divide, this chapter will discuss the various ways in which TPL and similar community libraries have been involved with digital literacy and inclusion. It will also explore how TPL has been identified by government agencies as a vehicle for civic engagement and oversight in the former Sidewalk Toronto smart city plan.

INTRODUCTION

In today's world, adequate access to resources that build and enable digital literacy and inclusion are necessary for individuals to fully participate in and benefit from their communities. North American cities are increasingly implementing smart technologies to stimulate the economy by creating new business opportunities and industries, improving the delivery of goods and services, promoting innovation, and enhancing the lives of their citizens. An increase of knowledge societies – those building on

technological innovation and the sharing of knowledge to better improve the lives of its citizens – has resulted in a greater flow of information. Digital literacy skills and inclusion are vital for citizens to have equal opportunities and to benefit from their governing bodies and community innovations. Additionally, an increasing gap between civic engagement and economic status continues to create inequity in representation and the decisions made by elected officials for communities and their citizens. Libraries are trusted public institutions and make a natural ally for community-led organizations. Outreach efforts in collaboration with partner organizations help to strengthen awareness around programs and services offered by both the library and community-led initiatives and can encourage civic engagement. These programs and services can ease the transition toward newer technologies for citizens experiencing precarious housing, unreliable internet services, fewer educational opportunities, low income, or limited digital literacy skills. By ensuring that these citizens have vital access and learning opportunities, libraries are an ideal center for promoting and implementing digital literacy initiatives and partnerships with municipal services to optimize the benefits of technological advancements. As cities increasingly implement smart technologies, sufficient access to information for all citizens is even more critical. By facilitating access to these smart technologies and building digital literacy, libraries fulfill a critical role in sharing knowledge, educating citizens of all economic levels, and increasing civic engagement for more equitable cities.

Background

Urban areas in Canada are seeing wider gaps in the income, education, and health of their citizens, and libraries have a unique role in addressing this issue. In 2015, a higher proportion of individuals aged 15 and older with both very low and very high incomes was seen in Ontario as compared to the rest of Canada (Ontario Ministry of Finance, 2017). More specifically, in the City of Toronto, there is a growing divide between neighborhoods, where inequality has "increased by 96% from 1980 to 2010" (Dinca-Panaitescu et al., 2017, p. 1). This trend is seen in other metropolitan areas of Canada, where urban areas are increasingly becoming segregated by income and the number of middle-income neighborhoods is in decline (Dinca-Panaitescu et al., 2017). This trend is seen globally as well, with highly skilled workers benefitting more than lower-income workers from rapidly evolving technologies, creating greater income inequality (United Nations [UN], 2020). These gaps extend to education and health as well. In the United States, the gap in higher-education completion between children from low- and high-income families has increased significantly, alongside increasing income inequality (Corak, 2017). A report by Toronto Public Health (2015) notes that low-income groups in Toronto often have poorer health than wealthier constituents, and health inequalities have persisted over the last ten years. These disparities in income, education, and health create limited opportunities for individuals, offering little room for a community to develop and thrive.

Digital connectivity is a factor in exacerbating these inequalities, but if examined and harnessed effectively, can help mitigate disparities. Bauer (2018) states that "information and communication technologies (ICTs) interact with other economic, technological, and political forces in ways that both increase and decrease income inequality" (p. 333). In a broad sense, ICTs can include much of the technologies used in everyday life, from mobile phones and the Internet to computers and associated hardware and software. Through these evolving technologies, information is collected, stored, processed, and accessed by citizens on a daily basis. As such, high-speed broadband internet is required to participate in and engage with many of today's activities, including education, work, and government initiatives. Higher

digital connectivity and access to the Internet typically go "hand in hand with higher income and vice versa" (Bauer, 2018, p. 336). As smart cities implement ICTs to support the improvement of a city's economy, government efficiency, and citizen engagement (Yeh, 2017), it is important to understand how the implementation of these technologies can be fairly accessed by all affected citizens. Libraries especially are suited to provide both internet access and connectivity, as well as learning opportunities and education in how to best utilize these services to the benefit of all citizens.

ANCHOR INSTITUTIONS: PUBLIC LIBRARIES IN AN INFORMATION AGE

Castells (2000) notes that society has entered an information age, in which the technological capacities of both communities and individuals, including their access to ICTs, determines wealth, power, and even cultural codes. As demonstrated above, these advances create both innovative opportunities for communities, as well as consequences for those with limited or unequal access to ICTs. In this information age, librarians play a key role through their longstanding mission of facilitating knowledge creation in their communities (Lankes, 2016). This mission of facilitating knowledge creation for the betterment of society is centuries old, yet still has a place in modern society. Lankes (2016) notes that this is unchanging, but that newer technologies mean that librarians' *tools* are evolving, as they continue to serve their communities both "inside and outside the confines of a library" (p. 21). With these changing tools, digital inclusion for community members is an important role librarians, especially public librarians, must play to contribute to their community's socio-economic wellbeing (Mersand et al., 2019). Goodman (2014) notes the emerging concept of anchor institutions as public institutions embedded in a community, such as educational and health care centers, libraries, museums, and other public areas. Libraries, as anchor institutions, can assist in digital inclusion by "extending connectivity and robust broadband access" (Mersand, et al., 2019, p. 3307). In addition to providing access to ICTs, librarians have turned public libraries into community hubs where technology is used to assist community members with finding employment, support for entrepreneurs and innovation with tools such as maker labs, and provide digital literacy training (Mersand, et al., 2019). Libraries as community hubs have "managed to mitigate some of the inequitable tendencies of technological diffusion" (Goodman, 2014, p. 1687). In so doing, they help bridge the aforementioned gaps in digital access, positively impacting the socio-economic wellbeing of their communities.

These hubs also support citizen engagement, often working to bridge the gap between "belonging in digital and physical communities" (Audunson, 2005, p. 439). For example, a decline in political involvement in Western countries has been attributed, in part, to the broadening of our geographical boundaries through modern technologies. As such, the geographical context in which our political bodies are anchored (i.e., the neighborhood, city, etc.) are no longer the arenas of participation we find most relevant or compelling in our lives (Audundson, 2005). As an anchor institution, firmly embedded in its community, a library provides the means for engagement within that local community. Within smart cities, libraries can help ensure that their communities are sufficiently included in new service delivery designs through the digital inclusion they strive to provide. Goodman (2014) notes that investing in the library's ability to provide broadband and other technologies needed for smart city initiatives, results in gains that are both "economic and democratic" (p. 1691).

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TORONTO PUBLIC LIBRARY'S DIGITAL LITERACY PLAN

Many libraries globally are responding to advances in technology by incorporating robust digital literacy plans into their organizational strategies. Toronto Public Library's current Strategic Plan aptly notes, "Torontonians' social and economic participation is increasingly dependent on their ability to navigate the digital world and interact with digital information and networks" (Toronto Public Library [TPL], 2020, p. 47). As a large urban center, Toronto has sufficient access to high-speed wireless broadband, yet standard prices across the city are often unaffordable in lower-income households (TPL, 2020). Currently, TPL provides free Wi-Fi in all 100 of its branches. The provision of this access to digital connectivity is also part of Toronto's Poverty Reduction Strategy, where the expansion of digital access and literacy is made to ensure that residents can effectively use programming and services. For example, a survey of TPL patrons accessing technology support services for workforce development found that 36 percent used such services to develop job finding skills, with 43% reporting a high level of success in finding a job from using such services (TPL, 2018). By providing both access and the means to effectively use available technologies, local community members have the tools to respond to stressors such as housing and job insecurity. This initiative is further bolstered by TPL's Wi-Fi hotspot lending program, which assists lower-income families in accessing vital digital connectivity at home (Meikle & Williams, 2017). Additionally, 44 percent of respondents who used any technology services provided by TPL indicated that they were subsequently introduced to new technology, with 92 percent noting they have continued to use these new technologies (TPL, 2018). In aligning with the city and other partners, TPL hopes to meet its goal of working together to "address some of the city's systemic challenges and empower Torontonians to seize its many opportunities so our city and its residents can thrive" (TPL, 2020, p. 42).

In addition to their focus on digital literacy and inclusion, TPL's current strategic plan specifically cites their alignment with the City of Toronto's Smart City TO strategy in all of its five identified strategic priorities, which include: public space, digital inclusion and literacy, workforce development, democratic society, and public service excellence. As part of its ongoing plan to improve digital literacy and inclusion, TPL has already initiated three stages of a pilot project called the Bridge Project, an initiative to help "public libraries in Ontario assess and demonstrate the impact of technology services offered in Ontario public libraries" (TPL, n.d.-b). Since the pilot's beginning in July 2016, "50 library systems in Ontario have agreed to use Bridge" (TPL, 2018, p. 6). Partnering with Nordicity, an international consulting firm, TPL has developed a range of resources to help public libraries in their provision of technology services. One such resource is the Bridge Technology Services Assessment Toolkit (Bridge), "a software-based solution for gathering and analyzing data" that allows libraries to easily assess both the need for technology services in their communities and the outcomes of those services (TPL, 2018, p. 6). This toolkit is importantly patron-focused and measures the benefits of these services and their availability to patrons. These performance indicators also measure the usage of services, which ensures that staff members have insight into how to improve services and justify costs through proven and measurable success. The most recent phase of the project (phase three) begins in May 2021 and will run until February 2022. The goal of this phase is to build public libraries' capacity to "collect, analyze and communicate data and to demonstrate public libraries' vital role in advancing digital equity in their communities" (TPL, n.d.-b). A TPL report assessing the Bridge Project notes findings that demonstrate libraries' technology services have "positive social, economic and creative impacts across various demographic groups in Ontario" (TPL, 2018, p. 5). By allowing libraries to collect and analyze data, the Bridge Program maximizes the benefits that technology services can have on a library's community, particularly equity-

seeking groups. When basic digital literacy and inclusion skills required for meaningful participation in a modern digital world are met, secondary outcomes are increased, such as community, social, and civic engagement (TPL, 2018). Libraries that support the building of these skills support both social and civic participation for community members.

Beyond the Bridge platform's benefit to developing successful and well-used programs that build digital literacy skills, findings also suggest there is a demand for classes in more advanced technology skills. A TPL Patron Survey indicates that about one-third of respondents "did not know that the library offered one-on-one support and technology classes for programming and coding but expressed an interest in using them" (TPL, 2018, p. 6). Promotion and outreach are vital to ensure that these programs are indeed used by those who may have an interest in them. Libraries that offer their users the chance to build on basic technological skills help ensure that citizens who may not have the means for or access to expensive continuing education can pursue those interests at little or no cost through their library. Classes such as these also serve as professional development opportunities, which aid in the development of emerging job skills in an evolving and modernizing workforce. Citizens who engage with emerging technologies through innovative and accessible programming can also develop basic skills needed in business development, providing opportunities and ideas to grow small businesses and start-ups.

As technological advancements and innovations are increasingly used to create more comfortable lives for citizens of Ontario, the digital divide must also be considered. The Bridge Program, though marketed to libraries across Ontario, is not fully functional in many small, rural, or First Nations libraries that have limited resources. The Ontario government's Broadband and Cellular Action Plan (2019) notes that 12% of the province's population lives in communities that are unserved or underserved in terms of access to broadband or cellular connections. These communities, primarily located in rural, remote, or northern regions of the province, cannot access the Canadian internet service standard of 50 Mbps download and 10 Mbps upload speeds. The Canadian Radio-television and Telecommunications Commission's (CRTC) 2019 communications monitoring report identified an even wider gap between households in medium and large urban populations and those in First Nations reserves. In Ontario, the availability of internet services with speeds of 50/10 Mbps and unlimited data is at 87.2% for the entire province, as compared to only 17% in First Nations reserves. In larger, urban centers such as Toronto, the availability of such internet service speeds is as high as 99.1% (Canadian Radio-television and Telecommunications Commission [CRTC], 2019). As urban centers move toward an increase in implementations of ICTs to improve the lives of citizens, greater equity of standard broadband is needed to ensure improvements in large urban areas do not further increase gaps in economic and social status. As it currently stands, many rural and Northern Ontarians have "limited options for accessing technology and broadband internet" without the help of public libraries (Abram, 2020, p. 2). In their *Broadband and Cellular Action Plan* (2019), the Ontario government distinguishes this need, noting that public libraries in Ontario offer their communities access to digital infrastructure "with over 10,000 public internet access computers and 1,000 circulating Wi-Fi hotspots" (para. 70). As of March 2021, Ontario's government has made a commitment to spend an additional $2.8 billion on improving internet access across the province by 2025. With this increased infrastructure, rural and small libraries will play a vital role in administering digital literacy programs to respond to increased broadband access.

Case Example: Digital Literacy for Seniors at Toronto Public Library

While digital literacy training provides vital educational and work skills, it can also help local seniors learn how to access important online services, from local public transportation options to ordering groceries for delivery. Scott (2011) notes that with technology continuously evolving, libraries function as places for patrons to "learn new skills and how to use new technology, which enables them to keep learning and pursuing their interests" (p. 206). Additionally, digital literacy programs targeted to seniors "provide increased social interaction and engagement with library staff and other seniors, as well as opportunities to stay connected with people and interests" (City of Toronto, 2018, p. 24). This expanded digital literacy and connectivity will also increase seniors' abilities to access pertinent services more broadly. Access to these services can greatly improve seniors' lives by creating ease, comfort, and connectivity to others.

Seniors Strategy

Toronto's Seniors Strategy specifically recommends TPL as a natural vehicle for implementing these actions. A partnership between TPL and Toronto Community Housing (TCH) exemplifies how digital literacy programs can be introduced and targeted toward seniors, especially those who are experiencing housing insecurity or are newcomers. Their partnership helps bring library programs for seniors directly to TCH senior-designated buildings, to meet users at their point of need. Additional relevant programming to assist seniors with digital inclusion are the Seniors Tech Help program and a recent partnership with CanAge, a national seniors' advocacy organization.

Seniors Tech Help

The Seniors Tech Help program began in 2019 as a pilot program with funding help through the Federal Computers for Success Canada program. The grant funding allowed TPL to create six "full-time digital internships for youth from BIPOC and underrepresented groups" to be trained on seniors' service to answer technical questions over the phone (City of Toronto, 2018, p. 5). The Seniors Tech Help program offers local seniors one-on-one assistance over the phone to help them use their technology (TPL, n.d.-g). This assistance includes aiding users to connect with family and friends online; borrow e-books, audiobooks, newspapers, and magazines; shop safely online; access health and support services online; and increase awareness around digital security and privacy (TPL, n.d.-g). Users can make appointments quickly through phone or email, with the ability to speak with one of the youth interns right away or schedule a convenient appointment. Although the program was scheduled to end in March 2021, it was renewed into the summer due to its success (Bowles, 2021). This type of programming provides seniors who may be vulnerable with a wide range of helpful services to navigate daily modern life, while also providing work placement skills and experience to youth from underrepresented communities. Likewise, seniors were able to access help from the convenience of their own homes. City Librarian, Vickery Bowles, said of the program, "seniors loved having support in the safety of their homes, and many gained skills and confidence" (Bowles, 2021, para. 15).

Partnership with CanAge

In October 2020, the national seniors' advocacy group, CanAge, announced a partnership with TPL with the goal to develop more "opportunities for seniors to learn, contribute to their communities and build an age-inclusive city" (CanAge, 2021). CanAge is a non-partisan, non-profit organization that seeks to educate and empower citizens on issues that matter most to older Canadians, their families, and caregivers. Through this new partnership, TPL and CanAge launched the Educational Speaker series "Aging your Way: Creating an Age-Inclusive Canada, Together" in March 2021 (CanAge, 2021). Initial sessions included in the speaker series were "Using Technology to Stay Connected," "Stop the Stigma: Ageism," and "Power of Attorney 101" (CanAge, 2021). Resources from past sessions are made available for those who may have missed the live presentation, including links to the presentation slides, a video recording of the presentation, key learnings, speaker biographies, and related fact sheets and resources. The session on using technology to stay connected included some particularly relevant coverage of topics related to digital literacy, such as protecting older people from falling victim to online or phone frauds and scams. The importance of social connections was also addressed, as well as the benefits of volunteering. It is not only youth who are able to volunteer their digital expertise – older adults looking for opportunities to be involved in their community and who have a base-knowledge in digital tools can also volunteer to help their peers in learning, while also creating new social connections.

Covid-19 Initiatives

Global disruptive events such as the COVID-19 pandemic highlight the importance of the above programs and services to vulnerable communities. As of May 2021, Ontario had seen three provincial declarations of emergency since the beginning of the pandemic, in addition to multiple stay-at-home orders. As such, individuals across all ages, social, and cultural backgrounds have experienced some degree of isolation since March 2020. Seniors were particularly vulnerable to both the COVID-19 symptoms, as well as feelings of isolation from family and friends. By July 2020, TPL had undertaken an initiative to place quick, 10-minute phone calls to seniors who were library cardholders as a way of providing wellness checks (Vega, 2020). Among the first thousand senior library users to receive a phone call were those already registered for a delivery service intended for individuals who are less mobile due to age, illness, and/or disability. These phone calls, originally intended as an outreach program "directed at library users who might be isolated and vulnerable" during the pandemic, had been extended to 10,000 users by December 2020 (Vega, 2020). Additionally, these calls provide an opportunity for library staff to offer help navigating library resources, many of which have now moved online (Vega, 2020). The initiative's success in reaching out to users aged 80-100 sparked the decision to further open up the calls to seniors aged 70-79, with a goal of reaching 20,000 users. TPL has reported "overwhelmingly positive" feedback from users, with conversations ranging from casual chats about books, community services, cooking, and even the weather, to information on how to access online services (TPL, n.d.-h). The benefits of these calls extend beyond the community to the TPL staff as well, with staff members noting that the calls have been "incredibly rewarding for the team" (TPL, n.d.-h).

Case Example: Digital Literacy for Small Businesses

Participation in a knowledge society and its economy requires a foundation in digital literacy. Entrepreneurs and small, local businesses must also meet occupational digital literacy standards to maintain relevance and best business practices in an evolving workforce and knowledge economy. The frequent pace with which industry-specific technologies change over time, "means that it is often much more important for workers to be capable of adapting to a variety of tools than it is for them to memorize one specific tool" (Bergson-Shilcock, 2020, p. 2). However, entrepreneurs and small business leaders may experience difficulty pursuing wide-scale training or professional development due to a lack of public investment. While larger firms are embracing occupational digital literacy with relative ease, smaller businesses often struggle to "assemble the training partners and resources they need to ensure a steady supply of workers with the necessary skills" (Bergson-Shilcock, 2020, p. 3). Additionally, a 2016 report by the Information Technology Association of Canada (ITAC) notes that "ICT adoption across Canadian businesses and citizens significantly lags behind other countries, resulting in lower business productivity and reduced prosperity for Canadians" (p. 4). For entrepreneurs and small businesses to fully take advantage of modern innovations and available resources, they must have a solid foundation in digital literacy.

Relevant Programming

To supplement public funding and investment in ICT initiatives, Ontario libraries have responded to aid local businesses and entrepreneurs to meet the demands of digital enterprises. Many Ontario libraries also run specialized programs beyond providing classes and programming that build basic digital literacy skills. Among TPL's many relevant classes and programs are social media for small businesses, access to online market research, digital marketing, various business software, and more. TPL's local partnerships also allow for targeted and critical programming to assist individuals with their business needs. Partnering with the City of Toronto and the Toronto Business Development Center (TBDC), TPL offers Business Inc., an eight-week business program. The program provides access to business advisors and resources, instruction on preparing and updating business plans, and networking opportunities with other entrepreneurs. Individuals who complete the course receive a Business Seminar Series Certificate of Completion from the TBDC, a local start-up incubator that offers crucial resources to help establish businesses.

Another significant pathway to success offered by TPL is their Entrepreneur in Residence (EIR) program. This eight-week residency involves the EIR reviewing submitted business ideas and meeting one-on-one with selected applicants to critique and evaluate their business plans (TPL, n.d.-d). The one-on-one meetings can be conducted virtually and are offered at no cost to the applicant, providing a cost-effective way for small business leaders and entrepreneurs to receive guidance and beneficial resources for their business plans. The EIR also works closely with library staff to curate relevant programs and events, and shares expertise on TPL's Business and Personal Finance blog. Most recently, TPL is also offering a ten-week Innovator in Residence program featuring sessions surrounding data privacy. This program from the spring of 2021 is a free lecture series that discusses key issues and challenges presented in the planning and implementation of a smart city from a data privacy perspective (TPL, n.d.-e). Free programs such as the Innovator in Residence program demonstrate the need for free spaces such as libraries for the dissemination of often complex information that can directly affect community members and their ability to benefit from government initiatives aimed at improving quality of life.

Digital Innovation Hubs

In addition to vital and cost-effective programming options, libraries offer physical workspaces. These spaces allow individuals to network, collaborate, and engage in unrestrained conversations with other entrepreneurs to expand knowledge. With free wireless, internet and computer access, and rooms for booking, these collaborative spaces "encourage conversations, support co-working and co-creation, and stimulate and spark ideas" (Demers, 2016, p. 4).

The Digital Innovation Hubs (DIH), introduced by TPL in 2013, demonstrate how library spaces are used to foster and grow knowledge in a digital economy. These hubs were originally located at the Toronto Reference Library, Scarborough Civic Center, and Fort York branches; however, their popularity has driven plans to include them in "most branches undergoing renovations in the next 10 years, including both small and medium sized neighborhood locations as well as larger district branches" (Demers, 2016, p. 5). DIHs provide access to tools such as technology, software, and classes, and are meant to provide individuals with information to "participate in, contribute to and succeed in today's digital environment" (Demers, 2016, p. 4). Tools available for use include sewing machines, vinyl printers/cutters, recording studios, 3D printers, and Arduino kits for borrowing (TPL, n.d.-c). The DIH initiative is intended to support the development of knowledge about new and emerging technologies by providing free and extensive programs, a speaker series, specialized hardware, software, equipment, and "a flexible and accessible space that serves users of all ages, skill levels, and backgrounds" (Demers, 2016, p. 4).

In addition to the DIH spaces, TPL offers Pop-Up Learning Labs (PULLs), which travel to different branches and bring technology to the community through free programs and classes. This initiative began in late 2014 with a grant from a Toronto-based charitable foundation, the Metcalf Foundation (Demers, 2016). Using grant funding, TPL purchased a 3D printer, Macbooks, and Arduino kits, and "hired community experts to deliver innovative programs in Neighborhood Improvement Areas" (Demers, 2016, p. 5). As initial recipients of the program, the library selected Neighborhood Improvement Areas, which are "designated areas within the City that need additional investment to combat specific problems such as higher-than-average crime or a shortage of services" (City of Toronto, n.d., para. 1). The choice in recipients aligns with Metcalf Foundation's mandate to share knowledge to improve the economic livelihoods of low-income people. A full-time staff member was also hired by TPL to support the PULLs, while PULL kits are available for branches to request for month-long periods (Demers, 2016; TPL, n.d.-f).

In supporting the needs of innovators, entrepreneurs, and creators of all age levels and backgrounds, TPL is at the forefront of providing a solid foundation for citizens to embrace the needs of evolving knowledge societies. Demers (2016) notes, "innovation services, such as 3D printers and coding workshops, are helping to bridge the digital divide in our cities" (p. 8). Fostering knowledge creation around emerging technologies and providing digital literacy instruction ensures that community members can participate in the digital economy. This participation actively influences the community's ability to thrive, with citizens who have the necessary skills to increase business productivity, which increases community prosperity.

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CIVIC ENGAGEMENT IN PUBLIC LIBRARIES

As trusted public institutions, libraries frequently work in partnership with community organizations to discover new means to connect citizens and increase their civic participation (Kranich, 2008). Today, many North Americans are increasingly disconnected from institutions of civic life, with less frequent ties to long-term communities such as schools, religious institutions, and other civic groups (Cohen, 2017; Kranich, 2008). Additionally, the proliferation of media and technology has blurred political facts and issues. Data also shows that higher levels of education and wealth correlate to higher levels of civic knowledge and participation (Buschman, 2018). A report by the Organisation for Economic Co-operation and Development (OECD) identifies income and wealth inequality as a barrier to access to education and participation in today's economy (Organisation for Economic Co-operation and Development [OECD], 2015). A lack of equal access leads to a gap in representation among those making decisions about governing their communities and leaves behind citizens who do not have sufficient access to information and subsequent engagement. As cities increasingly implement further technologies, adequate access to information for all citizens is even more critical. In a study examined by Cocciolo (2013), a nationwide initiative followed documentary screenings at public libraries across the United States followed by post-screening discussions. The study's results indicated the film screenings and subsequent discussions allowed participating patrons to develop a greater knowledge base around the democratic and societal issues raised in the program, which acted as a foundation to taking more intensive actions such as signing a petition (Cocciolo, 2013). Such free programs and meeting spaces positively impact individuals and their interest in civic engagement. By facilitating access to both technologies and discussion spaces, libraries meaningfully contribute to sharing knowledge, educating citizens of all economic levels, and subsequently increase civic engagement for more equitable smart cities.

Case Example: Community Engagement in Barrie, Ontario

In the City of Barrie, located about 100 km north of Toronto, the Municipal Innovation Exchange (MIX), a 3-year partnership between the cities of Guelph, London, and Barrie (all located in Ontario) and the MaRS Discovery District, initiated a solution to address challenges experienced by local seniors and persons with disabilities. As part of this partnership, the MIX project team created a Toolkit to assist municipalities in undertaking procurement through innovation partnership (Municipal Innovation Exchange [MIX], 2021). Contents of the Toolkit were designed to support municipal and vendor partners to build, develop, and test products and services to create something of significant value for residents (MIX, 2021). An example used within the Toolkit depicts in particular, how innovative partnership can be utilized to improve the lives of vulnerable communities, in this case, seniors and persons with disabilities. The City of Barrie applied the MIX challenge Framework to create the "Snow Challenge," a program intended to provide seniors and persons with disabilities with a solution to the issue of clearing snow from their driveways during the winter (MIX, 2021). The City worked with Simalam Inc., a company specializing in the creation of web and mobile platforms, and Snow Angels Canada, to create a partnership that would result in a much-needed community tool – the Snow Angels Canada platform. The platform offers citizens in need to sign up for the service, while also offering those able to provide the service a chance to volunteer and work within the community. By signing up, seniors or persons with disabilities can connect with a volunteer near their postal code for efficient and free snow removal services.

As a "community fuelled tool to connect neighbors and their neighborhood," the Snow Angels platform highlights the benefits that come from community engagement (Snow Angels Canada, n.d.). With programs such as these, it is also important to create awareness about their existence within the community to promote usage and attract volunteers. The "Snow Challenge" also utilized feedback from essential user groups to improve the implementation of the Snow Angels platform in Barrie. Essential groups identified were clients – seniors and persons with disabilities requiring assistance with snow removal; volunteers – residents willing to devote their time and resources to shovel snow; and Front-Line City Staff – staff that had experience with residents seeking help from municipal services (MIX, 2021). By engaging these three groups, more target groups were identified, including "residents with temporary needs, such as new parents and persons recovering from acute health issues" (MIX, 2021, p. 50). To spread awareness of the services offered, the program employed the use of targeted communications about the service in places such as seniors centers, libraries, and recreation centers in order to successfully engage clients, volunteers, and front-line City staff (MIX, 2021). These are the kinds of initiatives in which library services can thrive because of their existing experience working with various user groups. Acting as a space in which this type of program can be advertised is an obvious benefit; however, the resources and educational programming on digital literacy offered by libraries ensure that all citizens in need of such services can utilize an online platform, such as the one from Snow Angels Canada. As ICTs and innovative partnerships become increasingly viable at the municipal level, it is vital that citizens are equipped with the tools needed to take full advantage of these services.

SMART CITIES IN ONTARIO

Identifying challenges and opportunities made available by the development of smart cities is difficult to clearly articulate, as they are often unique to each community. A smart city "uses technologies that collect data to enhance the management and delivery of municipal services, support municipal planning and analysis, and promote innovation within the community" (Information and Privacy Commissioner of Ontario [IPC], 2018, p. 1). As such, smart city development is often designed to meet the specific conditions and needs of a particular community.

Sidewalk Labs

In Ontario, issues surrounding smart cities in the past several years have largely centerd on Waterfront Toronto's plan for a revitalized 12-acre section of Toronto's eastern waterfront on Lake Ontario. Sidewalk Labs, a subsidiary of Alphabet (Google's parent company), was chosen as Waterfront Toronto's Innovation and Funding Partner in October 2017, with the subsequent project being called "Quayside Project" by local government agencies, and "Sidewalk Toronto" by Sidewalk Labs. Since then, issues and controversies over a lack of transparency in public versus private partnerships, data and privacy concerns, and questions of data ownership have gained considerable attention from various levels of government, community members, and other stakeholders. On May 7, 2020, Sidewalk Labs announced its withdrawal from the project. Sidewalk Labs' CEO, Daniel Doctoroff (2020), noted that the "unprecedented economic uncertainty" created by COVID-19, as well as Toronto's fluctuating real estate market, made the project financially unviable for the company. Following this departure, Waterfront Toronto announced it would "continue to seek public and expert input as we make a next-generation community

at Quayside a reality" (Waterfront Toronto, 2020, para. 4). As of March 10, 2021, Waterfront Toronto has renewed its search for Request for Qualifications (RFQ) with the Quayside Development Opportunity, calling it a rare opportunity to design, finance, and deliver a plan for a space that adds more dimension, connection, utility and originality in one of the last remaining expanses of Toronto's waterfront land (Waterfront Toronto, 2021).

Toronto Public Library and a Smart City Plan

In their master plan for Sidewalk Toronto, Sidewalk Labs (2019) specifically cited libraries as a community space that is critical for digital literacy and inclusion to mitigate barriers to civic and social engagement created by lack of access to digital services. As Toronto moves forward with a renewed call for proposals in Waterfront Toronto community, the city's LAMs will have an extensive role in promoting civic engagement and oversight in new technological environments. TPL, one of the "busiest urban public library systems in the world" (TPL, n.d.-a), has a stake in implementing various frameworks and collaborating with government agencies in addressing public concerns around technologies that collect personal information for a variety of purposes. TPL has already been involved, made recommendations, or been identified by government agencies as a vehicle for civic engagement and oversight in the former Sidewalk Toronto plan, and will continue to be a vital institution for engaging stakeholders with smart-city decision-making processes and the co-creation of public services and spaces.

A report published in January 2019 by the Toronto Regional Board of Trade (TRBT) aptly identifies the digital nature of Toronto's future economy and the integration of technology with every aspect of daily life. Most notably, TRBT recognizes the need for Toronto to establish a data governance model. TRBT recommends that the development of a Toronto Data Hub be assigned to the Toronto Public Library (TPL), as it already "has the resources, expertise and public trust to lead this process" (Ruttan et al., 2019, p. 1). The report further recommends that TPL collaborate with the Information and Privacy Commissioner of Ontario (IPC) rather than a private company. Although Sidewalk Labs is no longer attached to the project, TRBT's recommendations are notable and could be altered to fit new smart city or community proposals. As TPL is already familiar with a large swathe of community members, they would make an ideal organization to partner with on consulting with citizens, experts, and any relevant private or public organizations to explore principles and policy frameworks in managing data ownership, residency, usage, and reporting structures (Ruttan et al., 2019). TRBT recognized TPL as "an inclusive and trusted community hub that is responsible for providing free and equitable access to information and services to Toronto residents since 1810" (Ruttan et al., 2019, p. 7). As such, their involvement in plans surrounding data governance would create more trust in the community than with a private corporation unfamiliar to local communities.

The primary action item governing the recommendations for TPL in overseeing the creation of a data governance model is the development of a Data Hub. As smart cities utilize an extensive amount of technology integration with daily functions, "applications with a global reach would be required to carve out data generated" on large sites (Ruttan et al., 2019, p. 9). Considering the volume of data initially generated, TRBT's report recommends that an initial focus be given to "data generated by physical sensors that are installed in the physical site", such as sensors in streets and retail areas (Ruttan et al., 2019, p. 9). Installation of sensors would need to go through an approval process, and the storage and use of data produced by said sensors would ethically be done in an accessible and transparent process.

Again, the involvement of a trusted public institution such as TPL addresses some concerns over data being monetized.

Challenges

As libraries across the globe find themselves adapting to emerging smart city trends, there are a variety of challenges that arise due to the ambiguity of their roles. Leorke and Wyatt (2019) aptly note that libraries by default are put on the front line to assist "those left behind in their government's transition into the digital era" (p. 96). Plans, such as TPL's digital inclusion and literacy strategy, require budgets and financial resources that can include expensive technologies and free services. Likewise, libraries in other emerging smart cities will need to consider their funding structures, as it goes "hand in hand with the way policymakers and city planners measure and understand the contribution libraries make to their community's socio-economic life" (Leorke & Wyatt, 2019, p. 105). Because many libraries are funded through outcome-based metrics, increasing sophistication of data collection may be required to continue advocating for financial support. For example, Singapore's public buildings now have sensors throughout, which monitor the flow of people into the library's entrance and movement between sections, thus providing managers with detailed data about how long patrons spend in different areas and the types of activities they are doing (Leorke & Wyatt, 2019). These types of metrics can help solidify recognition of the library's role and contribution to their community, especially as it relates to their changing tools and services to meet community needs. Governments and policymakers need to understand how libraries are responding to the need for digital inclusion and the vital role they play in achieving this.

Despite offering valuable insights into the library's usage, this type of data collection also introduces privacy concerns. Public oversight is an important aspect to explore in any plans involving large-scale data collection. For example, TPL falls under the authority of the Information and Privacy Commissioner of Ontario (IPC) and adheres to guidelines laid out in the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA). Two other pieces of legislation, the Freedom of Information and Protection of Privacy Act (FIPPA) and the Personal Health Information Protection Act (PHIPA), also govern how public institutions (i.e., libraries, healthcare providers, schools, etc.) collect, manage, and release personal information. These laws are in place to protect citizens and their privacy. The IPC is responsible for overseeing all three of these acts and has "existing authority to protect individual privacy, as well as an established process to investigate privacy complains related to personal information and ensure compliance with the three acts" (Ruttan et al., 2019, p. 10). With the IPC's extensive experience in dealing with matters relating to data privacy, a working partnership between the IPC and TPL is a likely pairing for data governance concerns. Where TPL has digital technology and information expertise and access to industry experts and organizations, the IPC brings established investigatory powers. However, a weakness within the IPC's oversight powers is their enforcement powers. They cannot "levy fines against an organization for violating MFIPPA or FIPPA," although they can fine an offending organization up to $500,000 under PHIPA (Ruttan et al., 2019, p. 10).

TRBT's report also raises the consideration of intellectual property in Canada. Although Waterfront Toronto established a Digital Strategy Advisory Panel which consisted of "industry experts and academics," the province's Auditor General found that the panel's effectiveness in providing management guidance on issues such as intellectual property was limited (Office of the Auditor General of Ontario, 2018, p. 692). Additionally, the Auditor General found that panel members "assessed some meetings as primarily focused on administrative work, such as project background and confidentiality, and techni-

cal and scheduling issues" (p. 692). TRBT argues that the issue of intellectual property collected in the Quayside project be "framed as a discussion about capturing the economic value of the Quayside project" (Ruttan et al., 2019, p. 12). The value of intellectual property can be seen in its use by government organizations to improve infrastructure and inform regulatory changes. However, any private companies that seek to use personal data under the auspices of a public partnership will face challenges convincing communities or gaining necessary trust. Public oversight will be vital in smart city planning and the proliferation of data generated by associated technologies. Robinson and Coutts (2019) accurately write that "planning will remain a contested, political process in the era of the smart city" (p. 346). The need for clear and consistent partnerships between libraries and their local governments is vital as libraries work with limited budgets coupled with vast amounts of data and the responsibility to serve all community members as they navigate the information age.

CONCLUSION

The growing gap between civic engagement and economic status will only worsen with the onslaught of emerging technologies if public institutions are unable to provide appropriate access and training equitably for all citizens. As cities increasingly move toward the adoption of smart technologies, it is of utmost importance for governments and public institutions to consider the role of digital connectivity, literacy, and inclusion. Implementing ICTs to improve the lives of citizens has its drawbacks if its technologies cannot be equitably accessed and utilized. Disparities in income, education, and health may be further exacerbated if vulnerable citizens cannot access relevant technologies or gain critical digital literacy skills. Without such access, communities cannot meaningfully engage with opportunities to benefit from local innovations. The digital divide in Ontario will need to be bridged to ensure high-speed broadband internet is available across the province, providing citizens in rural, northern, and First Nations reserves with equal opportunities. Public libraries in Ontario already recognize the need for such access for citizens to be able to participate in and engage with daily activities and as such, provide equipment both on-site and for loan to mitigate issues of access where possible.

Beyond providing tools and equipment, libraries must also provide the training and foundational support for citizens to be able to utilize them effectively. Library programming and classes, such as those offered by TPL, are necessary to provide instruction and learning opportunities for all community members at their point of need. Partnerships between libraries and community organizations provide opportunities for libraries to offer their services to targeted groups, with relevant experts available to ensure that libraries present programming and services sensitively and appropriately for optimal implementation and success. While attention should be given to vulnerable groups, such as low-income households or seniors, efforts should also include support for groups such as entrepreneurs and small businesses from all backgrounds. Programs, access to experts, and equipment allow entrepreneurs and small businesses the opportunity to explore innovative options to grow and subsequently stimulate the local economy.

Smart city neighborhoods and developments are likely in Toronto's near future. As trusted community spaces, local public libraries must be considered for roles in facilitating data governance frameworks. TPL already plays a vital role in helping citizens navigate their digital privacy. Library programming keeps citizens informed and better able to engage with civic issues that may arise from the planning of large-scale smart developments in their neighborhoods. Their promotion and fostering of civic engagement will help citizens engage with oversight issues in emerging technological environments and

respond to changes in their communities. TPL is a logical choice for collaboration and participation in data management and governance decisions, especially in partnership with independent government oversight bodies such as the IPC. Exploration of these considerations is necessary to ensure equal access to knowledge sharing, education, health, and opportunities to benefit from smart city technologies meant to improve the lives of all citizens.

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KEY TERMS AND DEFINITIONS

Civic and Community Engagement: The use of both civic engagement and community engagement in this chapter includes activities such as volunteering, voting, and participating in and engaging with activities that strengthen the community (Urban Libraries Council, 2017).

Digital Divide: In this chapter, the digital divide encompasses the lack of equal access to reliable internet connections from devices such as computers, tablets, and mobile phones. The Canadian Federation of Library Associations (2016) notes that affordability creates a gap in citizens with personal access to the Internet. In other cases, a lack of widespread broadband infrastructure in remote or rural areas leaves a portion of the population without access to the Internet on par with their urban counterparts.

Digital Economy: The digital economy is a term that evolved in the 1990s when a focus on the impact of the Internet on the economy was emerging (Armstrong, 2020). In this chapter, the term is used to capture the present-day inevitable impact of new technologies on the economy and how they have altered how goods and services are marketed and obtained.

Digital Literacy: The American Library Association's (ALA) task force on Digital Literacy defines it as the ability to effectively utilize information and communication technologies to "find, understand, evaluate, create and communicate" information (ALA, 2013). In the context of this chapter, digital literacy is a key skill required to fully participate in technologically advanced communities.

Information Age: Our modern age in which information is transmitted quickly and disseminated widely due to increasing access to technology.

Information and Communication Technologies (ICTs): ICTs in this chapter broadly covers technologies that store, retrieve, transmit, and process information, such as computing systems, software and hardware, networks (i.e., the internet), mobile phones, etc.

Knowledge Society: A society, born out of technological advancements, in which knowledge is a pillar, and individual growth and participation in the generation of knowledge are supported and advanced.

Smart Technologies: Refers to technologies that use big data analysis and, in some cases artificial intelligence, to allow for even the smallest objects to have the capacity to connect and interact (Gul & Bano, 2019).

Chapter 21
Fostering Civic Engagement in Smart Cities:
An Opportunity for Public Libraries in India

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ABSTRACT

Smart cities are modern concepts that aim to provide better living conditions to their citizens by creating a sustainable environment. Citizens are the key partners behind the development of a smart city. They have to be aware about the civic duties and responsibilities towards the community. In this chapter, the authors analyze the concept of smart cities and what are the issues and challenges in India for developing a smart city. The authors also examine various civic engagement initiatives by the government of India. The objective of this chapter is to find the role played by public libraries in creating smarter communities and how they will help in promoting civic engagement activities.

INTRODUCTION

Man as a social animal is obliged towards protecting the environment that he lives in as well as maintaining the balance of the society. The great Greek philosopher Aristotle once said "Man by nature is a social animal, an individual who is unsocial naturally, and not accidentally is either beneath our notice or more than human. Society is something that precede the individual" (Albino et al, 2015). What makes a man or a human being unique is his or her ability to think, his power of speech and moral reasoning. Human beings are co-dependent on each other, one cannot live all by himself. Since man is a social animal, he is always found living in a community co-existing with others harmoniously. Being a part of the community, mankind is obliged towards fulfilling his/her duties to ensure in maintaining the balance of

the community. Likewise, he should also be aware of the political and economic situation of the society which he lives in. Civic engagement is a term that is used for any individual or group activities that address the issues of public concern. People should always be aware of the political and socio-economic issues that concerns the community. Therefore, the term civic engagement refers to the participation of individuals coming together in a public realm where people can exchange their thoughts and ideas, where the public voice is resonated. Civic engagement becomes more meaningful in a society when healthy democracy prevails, because only a vigorous democracy would let the public to share their views on issues concerning the societal aspects. Citizens should make themselves involved in the decision-making process and deliberation, for it will enable them to become more proficient in the political sphere and transform the civilian from mere spectator to active agent. In order to achieve civic engagement, citizens must be educated about their basic rights. For this, the populace must come together in a shared platform to discuss and exchange their thoughts and ideas.

The concept of Smart cities is a good instance for engaging citizens in productive and innovative activities. Smart City is an emerging new concept without a universally accepted definition. The idea of smart city varies from country to country depending on its level of development. In India, the Smart City mission was launched by Prime Minister on June 25, 2015. The major objective behind this mission is to provide a better living condition to its citizens by providing good infrastructure, clean and sustainable environment. As part of this mission, the Government of India has collaborated with State/Urban Local Bodies for financial assistance as well as encourage the participation of private sector through Public Private Partnerships. The Central Government also converge with similar other schemes proposed by the government itself, like AMRUT (Atal Mission for Rejuvenation and Urban Transformation), Swachh Bharat Mission, Digital India, National Heritage City Development and Augmentation Yojna (HRIDAY) that shares similar objectives but following a different path [2]. However, the authors cannot help but notice that community institutions like public libraries are evidently left out of the scene when these institutions can help the government to achieve the desired goal. The primary goal of the mission is the well-being of community, to enlighten the citizens by creating a platform where people can come together and engage in democratic activities, participate in debates thereby achieving civic growth and improving the standard of living for people. Public libraries can offer the best platform for the citizens to engage in the above said activities. Libraries has always been the most welcoming, neutral, safe civic spaces in our community. They accommodate everyone irrespective of their gender, age, social and economic background. Libraries are not just a concrete building with collection of decade old books. Besides offering conventional services, libraries can play an indispensable role in transforming the society by engaging the citizens in civic participation. Integrating new technological aspects into public libraries and by understanding the ever-changing need of the user community, public libraries can offer a whole new range of services that fits the need of smart city community.

In this chapter, the authors explore the smart city initiatives of Government of India that helps the citizens to become active participants in civic activities and the programs and services that can be offered by public libraries in strengthening the civic culture. The major question of this research is how public libraries in India can contribute in creating a smart community and how they will help in fostering civic engagement in smart communities.

BACKGROUND OF THE STUDY

In this section, the authors present the concept of smart cities with the help of retrospective studies on Smart Cities, Civic engagement in Smart Communities and the role played by public libraries in achieving it.

Smart Cities: An Overview

The authors have already mentioned that there has been no universally accepted definition for Smart City as it tends to change the concept depending on the country or region where it is applied. However, in this paper, the authors present a framework on what is a Smart City or a Smart Community with the help of retrospective literature review.

Urban settlements and cities are the key element that leapfrog the economic and social growth of any country. Cities always grow around locations that have a port or railway hub or an airport. The ease of transport and access to these facilities are the key factors behind the development of any cities. Gradually, Government as well as Public Private Partnership bodies introduces new projects and bring investments to these places with the aim of attracting youngsters looking for jobs from different part of the country. As a result, the population density in urban settlements increases rapidly which would eventually result into larger consumption of natural resources. According to the United Nations Population Fund 2008, 50% of population of all people are living in urban settlements and this figure is expected to reach 70% by 2050 and in European countries 80% of population is already living in the Urban areas (Albino, Derardi & Dangelico, 2015). With an increasing population and an over consumption of natural resources, cities are required to look for sustainable solutions that will help to achieve both economic and social growth. The idea of smart cities developed out of this context. The term Smart City was introduced in the early 1990's. Albino, Derardi & Angelico (2015), says that the concept of smart cities is not only limited to the technological aspects but it should also give importance to others aspects of urban lifestyle such as efficient public transportation system and ensure sustainable lifestyle for its citizens and for the coming generations. The California Institute for Smart Cities investigated on how a community could become smart and what kind of technologies can be implemented to make a city smart. However, the Centre of Governance at the University of Ottawa criticized the idea of Smart Cities becoming way more technology oriented.

The concept of smart cities varies depending on the country and their people. Angelidou (2014), review the factors which differentiate policies for the development of a Smart city. According to her, four strategic choice with a spatial reference such as, national versus local strategies, new versus existing strategies, hard versus soft infrastructure-oriented strategies and sector based versus geographically based strategies are identified. In a local level implementation, urban problems are mostly manageable size which would require comparatively lesser effort, where as in national level implementation there is chance to fail in capitalizing the sum of local resources effectively. On the other hand, Urban planners do not encourage development of new cities as there are already cities that are so complex to accommodate the present population. The author recommends, before developing a strategy to build a smart city, first identify the obstacles that are already in place and how it can be improved. He further states that selectivity, synergies, prioritization are the three key elements in planning a smart city.

Though the approach and style in implementing a smart city is different, their aim is to achieve a more sustainable and greener living conditions that will help to improve quality of life and economic opportunities of its citizens. For example; the climate street app of Amsterdam has collaborated with its

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community to convert a district into a sustainable shopping area with reduced carbon footprint, and the smart city of Barcelona installed 12 outdoor street lighting points with eco digital LED technology and multi-purpose sensors which can be used as a network by multiple vendors (Lee, Hancock & Hu, 2013).

Since the objective of Smart city is to provide a sustainable living condition for its citizens it is pivotal for the citizens to participate in the smart city initiative. In global scenario, many countries have taken initiatives in making their cities efficient and has also opened the platform for its citizens to exchange their thoughts and ideas. "The Smart London Plan" is a fine example of citizen engagement. This project gives prime importance to their citizens enabling them to take part in online discussions, Q&A, eVoting, engaging in deliberate discussions focusing on improving the lives of London citizens through a platform called "Talk London". Likewise, the Colombian capital city, Bogota has introduced a similar initiative called "My Ideal City". It is an online platform for the citizens of Bogota to generate smart city proposals through real time interactions and direct feedback mechanism. The citizens are also asked to vote for the ideas and the most debated topics are picked through crowdsourcing systems. Similarly, the government of India has also launched an initiative called "MyGov.in"- a national citizen engagement platform launched by Prime Minister of India on 26th July, 2014. This portal provides interactive sections for citizen to engage in group discussions on issues concerning housing, industry or environment, conducting competitions for logo designing, tagline designing, a platform for people to submit essays on given topics, to write blogs and sharing experiences on concerned issues etc. (Prahraj, Han & Hawken, 2017).

Smart City: Indian Scenario

Cities have always been the epicenter of any country's economic and GDP growth. With endless job opportunities and providing a convenient lifestyle, city always seems to be very attractive for neoliberal minds. However, with increasing density in population and consumption of resources the modern-day urban settlements face new challenges. To overcome this situation, cities should look for a more sustainable and efficient way of livelihood for its citizens. The sustainable development goals adopted by the United Nations in 2015 is a universal call for action to end poverty, and to ensure a safe and prosperous environment for the present and future generations (Aijaz, 2016). Among the 17 SDG's or global goals, the United Nations have given considerable importance regarding urban settlement. According to the UN, half of the global population lives in the cities and this figure is expected to increase with time. Migration and a rapid increase in population has resulted in the development of mega cities and consequently there is an evident boom in slum areas, especially in the developing countries. The United Nations have clearly explained the goal target on how a sustainable city can be developed, and based on the recommendations the same can be applied in building a Smart City. The goal targets for a sustainable city and communities recommended by the UN includes, safe and affordable housing and upgrading of slums, providing access to safe, affordable, accessible and sustainable transport system for all, considerable attention to be given for air quality, waste management, providing access to safe, inclusive and green public spaces etc.

The Smart City Mission, a five-year program was launched by Prime Minister of India on 25th June 2015 with the motive of developing 100 Smart and sustainable cities across India. The project is a centrally sponsored scheme with an investment of 48,000 crores over five years and an additional financial support will be contributed by the respective state/urban local bodies (Government of India, n.d.). In a developing country like India building a Smart City comes with a lot of challenges as the country faces

numerous other problems such as lack of proper urban infrastructure, polluted air and water resources. Being digitally inclusive is not the only parameter for a smart city, proper services and facilities, ensuring safe civic spaces for the citizens especially women and children, clean and sustainable environment, convenient and efficient transportation are benchmarks for smart cities. Chatterjee and Kumar (2015) explain the need for a clean city that would help in fetching fresh mind thereby eliminating health hazard. The authors draw attention towards the northern river 'Ganges' which has been contaminated by the inhabitants for wrong reasons and how it poses a threat for the environment. Therefore, the authorities associated with the smart city planning must have a perspicacious idea about the mission. The authors further add that some basic principles such as coalescence, practicality and involvement should be kept in mind of the authorities which would help them to explore their own vision.

Selection Process of Smart Cities in India

The selection process of smart cities follows a challenge process in two stages and is based on competitive and co-operative federalism. The 'Indian smart cities challenge' is a competition designed to inspire and motivate municipal officials as they develop smart proposals to improve resident's lives. The selection process is a step-by-step process as discussed below (Government of India, n.d.).

Step 1: Potential Cities are identified from each state/UT with desired population, existing performance and service levels, financial strength and implementation of previous reform measures.
Step 2: As the first stage of challenge, a competition is organized within the respective state/UT and the cities with the best smart city proposals will be considered for funding from the Ministry of Urban Development.
Step 3: The cities selected in the first stage are to prepare smart city plans with the help of government assistance and foreign consulting firms. Cities that were not selected in this stage are asked to revise their proposals and participate in the next round of competition.
Step 4: In the second phase of the competition, the selected smart city plans are evaluated by a panel of national and international experts.
Step 5: Name of the winning cities are announced.

Implementation of smart cities is done with the help of special purpose vehicle in the form of a limited company under the companies' act, 2013. Therefore, the cities that was selected through the competition will be asked to form a SPV (Special Purpose Vehicle) headed by a CEO, comprising nominees of state and central government. Since the formation of SPV's are mandatory they will be in full charge to execute the program through joint venture, public private partnerships, subsidiaries etc.

Policies and Schemes for Smart Cities in India

There are many schemes and programs proposed by the central government which are similar to the urban development such as AMRUT (Atal Mission for Rejuvenation and Urban Transformation), Swachh Bharat mission, National Heritage City Development and Augmentation Yojana (HRIDAY), Digital India etc. Convergence with theses schemes will benefit in achieving the Smart city mission (Government of India, n.d.).

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AMRUT (Atal Mission for Rejuvenation and Urban Transformation): The thrust areas of the mission are explained below (Hoon et al., 2013):

- Water supply
- Sewerage and septage management
- Storm water Drainage to reduce flooding
- Non-motorized Urban Transport
- Green space/parks.

Under the AMRUT scheme, 500 cities are selected with a population of over one lakh with notified municipalities as per census 2011. Cities from the stem of main rivers with a population above 75000 and less than one lakh and cities from hill states, islands and tourist destinations are also selected for the AMRUT mission. The basic objective of this mission is to ensure proper water supply, sewerage and urban transport. The purpose of this mission is explained below:

- To ensure that every household has access to tap with adequate supply of water and proper sewerage connection
- Rehabilitation of old sewerage and water supply plants and rejuvenation of water bodies for drinking water and recharging of ground water.
- Recycling and reuse of waste water
- Construction of proper drainage and storm drainage system to avoid flooding.
- Construction of footpaths and sidewalks for pedestrians and facilities for people using bicycles.
- Creating green space and parks with special provision for women, children, senior citizens.

Swachh Bharath Mission: The mission was launched by Prime Minister of India on 2nd October, 2014 with an aim to achieve universal sanitation coverage. The prime focus of the mission was to eliminate open defecation in the rural areas and this was implemented through construction of household owned and community owned toilets and establishing mechanisms for monitoring toilet construction and usage. India is considered to be a third world country and is also a developing country. Poor sanitation, poverty, unemployment and many other obstacles are faced by the nation, so it is essential to understand the ground reality of the country and to take steps to identify the solutions to overcome these barriers. The Swachh Bharat mission also focuses on to develop community managed sanitation systems for scientific solid and liquid waste management system which will help in the overall cleanliness of rural areas. The mission also encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation (india.gov.in, 2016).

The National Heritage City Development and Augmentation Yojana (HRIDAY): The central government launched the scheme on 21st January 2015. The basic objective of this scheme was to preserve the heritage character of the cities by incorporating urban planning, economic growth and heritage conservation. The estimated budget of the scheme is Rs. 500 crore and it is to be implemented in 13 identified cities namely Ajmer, Amaravati, Amritsar, Badami, Dwarka, Gaya, Kanchipuram, Mathura, Puri, Varanasi, Velankanni, Vellore and Warangal (International Federation of Library Associations).

Digital India: The Digital India initiative is a flagship program of the central government and this scheme can play an integral part in the Smart City mission since the objective of the mission focuses on a technologically efficient and sustainable community. The vision of the Digital India program is to

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transform India into a digitally empowered society and knowledge economy. The vision area of Digital India is focused on three key areas namely,

1. Digital infrastructure as a core utility to every citizen
2. Governance and services on demand
3. Digital empowerment of citizens

The Digital India program is giving considerable importance to its citizens by providing digital literacy to all, making digital resources/services available in Indian languages so that language barrier can be avoided. Citizens can also avoid physical submission of documents and certificates, since submission of records can be done through online platform. The Digital India program is a fine example that can be adopted in implementing the smart city mission (Kranich, 2014).

Smart City in India: Issues and Challenges

In a developing country like India decisions must be carried out in a pragmatic way. Before setting up any mega projects the authorities must have a definite idea about the practicality of the situation and how it can be implemented. Likewise, implementation of smart cities includes a lot of challenges in a developing economy like India. For this, the city authorities should chalk out the viable plans, formulate their own targets and with the help of existing technologies the goal could be achieved. The issues and challenges faced in the Smart city mission is pointed out below (Kumar et al., 2018):

- *Lack of Investments*: Besides the fund allocated by the central government other sources of fund must be gathered for the effective functioning of the project. Budget constraints will hinder the development of smart city initiatives.
- *Integration between the central and state governments*: Indian political scenario is often very complex. Even though the central government which is governed by a single political party, the state government ruling parties will be different. Naturally, political differences will be evident between the centrally governed and state governed ruling parties. Though the states are in favor of the Smart City Mission, there is a general doubt whether the states could collectively work to attain the goal.
- *Digital divide*: The objective of the smart city mission is to engage the citizens in active civic participation by providing a safe and sustainable environment as well as making them digitally proficient. However, in India people are still not so tech savvy and they even lack the basic digital skills such as how to use the internet and so on. To address this issue basic digital awareness for people is required.
- *Lack of expertise*: Mega projects like Smart City Mission requires the participation of dynamic and smart minds. However, lack of professionals would result in improper functioning of the project.
- *Lack of civic participation*: people are not so well aware of this project and hence there is an evident lack of support and participation from the general public.

Civic Engagement Programs in India

The key behind any smart and vibrant community is the vital role played by the citizens. The authorities and government officials should be able to prioritize the requirements and understand the practicality of the present community before committing to implement projects. Although, there are non-profit organizations within the country that aims to protect the sovereignty of the people and advocates to strengthen democracy in India by promoting civic engagement. The authors have identified such civic engagement activities and they are discussed in this section.

The Janaagraha Centre for Citizenship and Democracy: It is a not-for-profit organization registered under the Indian Trusts Act, 1882 founded by Swami Ramanathan and Ramesh Ramanathan in December 2001 (Man as a Social Animal, 2012). The main focus of this organization is to promote civic learning, civic participation by closely working with citizens in city neighborhoods as well as government. The mission of Janaagraha is to transform quality of life in India's cities and towns, and they make it possible by creating a definite framework to achieve it. For this, Janaagraha focuses on activities to improve quality of citizen by systematically delivering civic learning modules to school students, college students, corporate employees and other groups of citizens, by creating innovative platforms and providing data and tools to bring citizens and government together.

There are several programs introduced by Janaagraha that would help to catalyze the civic engagement activities and would also provide a platform for civic learning process. As part of civic learning, the young and vibrant minds of the nation is given an opportunity to showcase their talent and express their thoughts and ideas through a platform called Bala Janaagraha. The program focuses on school students by engaging them in civic project activities, through this the students will be able to enable skills like critical thinking, collaboration, deliberation and help the children in participating with local communities. Aside from this, a nationwide experiential project activity for students under the name 'I change my city challenge' is conducted for students from class 6th to 12th from any school in the country to engage with a civic issue or any other issue that affects their school or community and the team with best civic project get a chance to showcase their project in the 'I Change My City Civic Fest'.

Other civic program initiatives of Janaagraha includes Community Policing, My City My Budget, I Change My City and I Paid a Bribe. Community policing is an initiative of Bengaluru city police in partnership with local community. The objective of this program is to ensure neighborhood safety and participation of citizens in crime prevention by addressing security issues and concerns to Bengaluru City Police. For this, a 'Jana Suraksha Samithi' is formed in every police station. This friendly partnership between the police and local community is a fine example that can be adopted in every city and will help to eliminate hesitation in approaching towards the police.

Corruption and bribery have always suffocated the entire democratic process of the country. The public servants of the country are meant to help and provide their services to common man so they can go through cumbersome government procedures with ease. Instead, corruption and bribery has made the system opaque and eventually resulted in lack of trust in government institutions. Janaagraha started an online initiative called 'I Paid A Bribe' which focuses on retail corruption and it uses crowd-sourcing model to collect bribe reports thereby building a repository of corruption-related data across government departments.

I Change My City is another unique platform provided by Janaagraha for people to come together and interact on various civic issues. ICMyC focuses on three aspects in urban governance, i.e., Participation, Accountability and Transparency and act as a bridge between government and citizens. The common

issues addressed through this platform are garbage disposal, poor road constructions, street safety and security related issues. ICMyC has undertaken three key initiatives for civic participation. They are:

● I Change My City mobile and web application
● Swachhatha mobile and web application
● Public Eye mobile application

The Swachhatha mobile application is developed in partnership with the Swachh Bharath Mission initiative, a flagship program of Ministry of Urban Development, Government of India. This platform is best used for complaints and grievances regarding civic issues and it is redressed by the municipal corporations in India. Another web application developed by Janaagraha in partnership with Bengaluru city police is the 'Public Eye' where the app allows the citizens to report traffic violations of aberrant drivers and are eventually fined by the police officers.

Janaagraha also put forward advocacy and reform programs for developing a better city. for this, the organization has suggested to create a city blueprint so that the city leaders/authorities can effectively create a strategy for the city development by identifying the shortfalls.

MyGov.in: Similarly, the Government of India has developed an online citizen engagement platform called MyGov.in to promote active participation of citizen in the country's governance and development. MyGov.in consists of 80 groups of various Government Departments and Ministries and provides three modes of participations namely Do, Discuss, and Disseminate. The 'Do' platform allows the citizens to participate in online and on ground tasks such as Logo Design contest and Tagline contest which are organized by respective department or ministry. The platform allows the citizen to express thoughts and ideas in their own mother tongue thus ensuring an inclusive participation from each part of the country. Under the 'Discuss' platform of MyGov.in, citizens are invited to make their contribution by sharing ideas on Prime Minister's 'Mann Ki Baat'(Talk of the Heart), Budget initiatives and many other projects. The portal disseminates the collected information through various modes like blogs, talks and newsletters. MyGov.in also provides an opportunity for citizens to interact with senior government officials, industry experts, and academia through a facility called 'talks', through live chats and video conferencing. MyGov.in introduced a new kind of civic engagement i.e., digital civic engagement where citizens can come together in an online platform and engage themselves in healthy and deliberate conversations related to civic issues and concerns (Mersand et al., 2018).

The Community Library Project: This initiative was started in 2010 by setting up libraries where anyone can become a member free of cost with the help of NGO Deepalaya and Narang Trust. The Community Library Project recognizes a serious lack of community libraries in India, and aims at providing access to books for everyone irrespective of their social and economic background. With the help of NGO's TCLP has set up 4 libraries in Delhi & Gurugram with a membership of over 4000 children and adults and has also associated with several organizations in Delhi to create community libraries. The community Library Project provides a platform for people from different professions like poets, dancers, musicians, writers come together and share their work, thoughts and ideas. By doing this, The Community Library project aims in building a society where citizens become self-aware, be able to debate and express themselves (Mersand et al., 2019).

Though citizen participation is less, India has a platform and offers a plethora of activities to promote civic engagement. The reason for lesser civic participation is due to the lack of proper orientation and awareness regarding the need for civic participation, especially within the rural villages of India.

This challenge can be overcome with the help of public libraries since these institutions are service oriented and provides equitable access to information to everyone. Public libraries can collaborate with Government projects as well as nonprofit organizations which will help in creating awareness among marginalized sections of the society.

Role of Public Libraries in Civic Engagement Activities of India

Public libraries are the most welcoming spaces at the heart of a community. These institutions not only provide free access to information for everyone, but also play a pivotal role in the cultural and economic development of a society. Although these institutions have huge potential, their relevance in the community often go unnoticed. Hence, importance of the public libraries has to be brought towards the attention of the citizens. Mersand and Hernandez (2019) explains about how public libraries are becoming community anchors through civic engagement in Smart Communities. For instance, libraries are partnering with local governments for creating electronic community bulletin board, by creating forums and groups, for citizens to get to know each other and hosting brainstorming session to identify topics and projects that would help the resident to improve their communities. Public libraries are also conducting community read projects around the town to stimulate conversations around the shared topic.

Kranich (2014) explains that, the challenges faced by libraries in the information age is extending their services beyond educating and informing into a realm to increase social capital, expand participation in democracy. The author further explains the civic partnership examples of libraries. Libraries act as civic space by providing comfortable environment for public gathering and offer a line of programs which will increase user participation. As a public forum, libraries host public programs which will provide the citizens an opportunity to frame issues of concern, conduct a deliberate discussion on how to find solutions and engage in healthy conversation to gather opinions of other citizens. Libraries with the help of ICT can facilitate as an information provider by reaching the community through local databases and websites, where citizens can find and use vital services within their communities. Conducting community read projects and developing partnership with public service organizations will help to build citizen participation and the author point out the need of civic literacy among children and adults alike which will transform them to become smart and efficient citizens.

Mankind has evolved a lot since he began to learn. From the invention of fire, to becoming a civilized society, to transforming the world with the help of science and technology; the evolution of learning process has always been marvelous. However, people often forget about the indispensable role they can play as an individual in a democratic society. Just like any other education, civic education is also an unavoidable curriculum in a man's life. Citizens should be educated about their civic responsibilities so that they can take part in deliberate decision-making process. This awareness will build self-confidence, capacity for self-governance enabling the citizens to evolve from casual voters to individuals with a clear sense of political knowledge. As a responsible community institution, the role of public libraries in promoting Civic engagement is vital in today's society. Kranich, (2012) has documented civic initiatives and grouped them into seven distinct categories: Libraries as Civic space, as enabler of civic literacy, as public forum and conservation catalyst, as civic information center, as community wide reading club, as partner in public service, as service-learning center. She has further added that, in this digital age public libraries must perform well and find active ways to engage members of community for democratic discourse as well as amelioration of the society.

In this digital era, where every aspects of our lives have become 'smart' i.e., from smart phones to smart TV and smart infrastructures, it is crucial that public libraries must also evolve into a smarter institution providing a plethora of services to every categories of users. Public libraries are unique when compared to the rest of the community institutions as their services not only target a specific category of people, but every section of the society. According to Mersand, Hernandez and Garcia (2018) some libraries offer their services to populations belonging to risk categories, such as people without a steady job and incarcerated youth and adults.

However, the role of public libraries in a developing country like India often remains unrecognized. The civic engagement activities in India are considerably less compared to other developed countries. A bigger section of public lacks general awareness regarding their basic civil rights and their fundamental citizenship values. The authors try to find answer to this cause by reviewing facts and literature. A survey conducted in 2019 by 'Youth Ki Awaaz' states that 77% of the youth population are not ready to vote for a popular candidate with a criminal record. Yet only 19% of young people know how to access information regarding a candidate's criminal background, assets and liabilities. Besides, in the latest Democracy Index Global rankings published by the Economist Intelligence Unit, India slipped to 51st position, the lowest rank since the Democracy Index was begun in 2006 (my.gov.in., 2014). One of the main reasons why the citizens of India show less interest in civic participation may be because of the teaching-learning process that starts from elementary schools. Even though civics and political science are taught as subjects in the curriculum, it is not enough for the students to get an idea on how to execute their rights and responsibilities as conscientious citizens of the county. Hence, apart from science and literature, the school curriculum should also incorporate activities to encourage civic engagement. Teaching political science just by going through the texts is not enough, students might be more encouraged if quiz competitions and healthy debate sections on politics and civic rights are conducted thereby making the students more informed about the political scenario of the country. Another reason is that a larger segment of the Indian population resides in the rural areas and outskirts of town or cities where people don't have adequate facilities to satisfy their basic needs. Poverty, illiteracy, unemployment all such factors hinder the development of a human being into becoming a responsible and literate citizen.

However, Public libraries can act as a lifeline to these marginalized people by providing them with basic facilities like providing internet access, safe spaces for learning, hands-on computer classes, ICT and literacy programs, promoting women empowerment by providing safe spaces for women to read and offering programs for woman and girls to access information about their rights and health (Praharaj et al., 2017). Civic engagement becomes possible when the people of the society is empowered in every way and to make it happen, availability of free and open information is required. People are able to express their thoughts and ideas when they are better informed, and a democratic country only becomes truly democratic when citizens take active participation in policy discussions, share similar ideas and observe different perspectives of people. Therefore, the role of public libraries is quintessential in promoting civic engagement as they are the only neutral places where citizens go in search for information and these institutions teach the users how to properly make use of the information and evaluate it.

The importance of public libraries and how it can play an active role in the economic, environmental and social aspects of a community have been explained in detail by the International Federation of Library Associations and Institutions (IFLA). IFLA has been a constant advocate for the inclusion of access to information and universal literacy in the UN 2030 agenda and consistently believes that libraries are already contributing towards the achievement of the sustainable development goals. Based on this, IFLA launched the International Advocacy Programme (IAP) in 2016, a new capacity building

programme designed to promote the role of public libraries in planning and implementation of the UN 2030 agenda (United Nations, n.d.). Out of the 17 goals proposed by the UN, three goals can be closely related to civic engagement activities that can be carried out by public libraries. They are mentioned below (Willingham, n.d.):

SDG 4: Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for All

Public libraries are considered as the heart of the community since they provide safe civic spaces to everyone who comes in search for information. Everyone who comes to the public libraries are treated equally without considering their social status or gender. The main focus of this goal is inclusive and equitable education to all and one of the major factors in achieving civic engagement is to make their citizens educated. This is achieved by public libraries by acting as a facilitator in communities, setting up local learning centres to support learning.

SDG 5: Achieve Gender Equality and Empower All Women and Girls

Civic participation demands for equal participation of the citizens within the country. It can be a five-year-old kindergartener, a vibrant teenager, a homemaker, or a retired public servant. Public libraries promote active participation of women and girls in civic participation and learning process by conducting literacy programmes, reading clubs and providing a safe civic space for working women, homemakers, teenage girls and children. Civic engagement becomes effective only when the voice of women community is heard.

SDG 10: Reduce Inequality Within and Among Countries

Public libraries are lifeline to the marginalized section of the society. They offer equitable access to information to everyone in both urban and rural parts of the country and foster civic engagement and citizen participation through local programmes and partnership with other local government bodies.

Therefore, public libraries can play a crucial role in a smart city and thereby engaging the citizens in civic participation activities and learning process. They can act as an information center, take part in civic literacy, create partnership with not-for-profit and government organizations to rekindle civil society and expand public participation in democracy.

The authors after going through a thorough review of literature understand that public libraries can provide much more than their conventional services like circulating books or acting as a reading room. In fact, public libraries have untapped potential and with the help of government initiatives and partnership with local government bodies public libraries can become an integral part of the democratic system and helps in creating a smarter community.

SOLUTIONS AND RECOMMENDATIONS

The authors have examined in detail about the concept of smart cities, its implementation, civic engagement activities in India, role of public libraries in promoting civic engagement in smart city. Based on this

study, the authors have understood that to transform the existing cities into smart cities there is a need for effective citizen participation within the community and as a service-oriented institution, public libraries are the best solution to fostering civic engagement. After conducting literature review and gathering information from various sources, the authors have suggested some solutions and recommendations to increase civic engagement with the help of public libraries to create a smarter community.

- *Libraries as facilitator of literacy programmes*: Civic participation becomes possible when people are properly educated and made aware of their civil rights and responsibilities. Public libraries can offer civil literacy programs which will help in improving the literacy skills that are required in the digital age, thereby enabling the citizens to take active participation in civic engagement activities.
- *Partnership with local government bodies and not-for-profit organizations*: Several non-profit and government organizations have taken smart initiatives for promoting civic engagement activities. Public libraries can play a vital role by actively involving with these initiatives and can create awareness among citizens regarding the citizen engagement activities.
- *Providing ICT enabled services*: With the advent of new technologies, public libraries can offer numerous services like incorporating social media platform such as Facebook, Instagram where public libraries can create pages and host events like quiz competitions, essay competitions, online debates and live chats related to civic issues.
- *Creating Reading Clubs*: Extensive reading of books help to improve the critical thinking and intellectual ability of an individual. With the help of existing resources, public libraries can create book reading clubs where the citizens can select to read a book of their interest and later a discussion can be conducted on the topic which will help in the gathering opinion of others too.
- *Comfortable and safe civic space*: Public libraries are the only open and safe civic spaces where people can come and relax to indulge in a book of their interest. Therefore, communities can gather together to take active participation in programmes and services offered by public library, this will help the citizens to engage in deliberate discussions related to issues concerning today's society.

Public libraries can play an indispensable role in building a society that will help the citizens to identify their civic duties and transforming them into a responsible citizen. The success of implementing smart city mission depends on the civic literacy of the people and it can be done with the active participation of public libraries within the community. When citizens participate in deliberate discussions and decision-making process, they learn how to become responsible individuals and the platform of public libraries will help to improve the confidence level in citizens to find a voice for themselves. The quality of self-awareness and critical thinking ability of a citizen is an essential element in a democratic country like India and in order to build a smart city or a smart community, citizens need to engage themselves in civic activities.

CONCLUSION

The objective of this chapter was to identify the role of public libraries in fostering civic engagement and how it can be applied in Smart Cities. The authors, through this study has identified several initiatives

that helps in promoting civic engagement. Similar to government and other local bodies, public library initiative such as The Community Library Project take active participation in promoting civic engagement and civic learning. However, the potential of public libraries is not fully utilized in advocating civic engagement activities. Libraries have long been the pioneers in providing free and equitable access to information and public libraries have always been in the forefront for conducting literacy campaigns, providing basic ICT training skills and other community development programs. With the involvement of stakeholders, partnership with civil society organizations and local government bodies, public libraries can offer a plethora of services in fostering civic engagement. Finally, the authors recognize that, further research in the study is required to understand the obstacles and challenges faced by public libraries in promoting civic participation.

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KEY TERMS AND DEFINITIONS

AMRUT: It is a scheme of Central Government of India to provide adequate supply of water, proper sewerage connection, rejuvenation of water bodies for urban settlement.

Civic Engagement: Civic engagement involves a group or individual working together to achieve a common goal for the betterment of the society and to protect the values of the community.

Community Information Centres: Public libraries are closely linked with local community; therefore, they can act as CICs for providing lifelong learning, knowledge sharing and to promote social interactions.

Community Libraries: A not-for-profit organization run by well-wishers and sponsors which is purely meant for the public to address their community needs. They act as a hub for learning, to impart knowledge and skills to young and elder alike.

Digital India: It is a flagship program of the Government of India which focuses on a technologically efficient community. The objective of this program is to transform the country into a digitally empowered society.

Smart Cities: The concept of smart cities includes comprising a wide range of electronic and digital technology for efficient and sustainable urban living settlements.

Sustainable Development Goals: SDGs are 17 global goals introduced by the UN in 2015 as a call for action to achieve sustainable and better future for the coming generations. They are also referred to as UN 2030 Agenda.

Chapter 22

Countering Fake News:
A Study of People's Attitudes and Strategies to Offset Disinformation in Smart Cities in India

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ABSTRACT

The objective of this study is to examine people's attitudes towards fake news and tactics to counter disinformation in India. A national survey through an online questionnaire was conducted through which 200 respondents recruited in the study through snowball sampling technique. The results of the study disclose that more than 90% of the participants perceive that fake news poses a threat, and 78.5% see fake news as harming democracy. Religious harmony and voting decisions are the topmost areas of public life which are mostly targeted by fake news in India. Conspicuously, the top three agents creating and disseminating fake news are politicians, political parties, and journalists. The study's findings provide an insight into countering fake news in India. This study is useful to government agencies in formulating policies related to fake news.

INTRODUCTION

Over the last few years, there has been an escalating growth in the incidents of fake news that ultimately pose a significant threat to democracy, justice, liberty, equality, and fraternity (Zhou &Zafarani, 2020). In the present scenario, fake news has become a terrible catastrophe because many people lost their lives due to the spread of misinformation across the world. Specifically in India, dozens of people have been killed by the mob due to child abduction rumors propagated through social media platforms viz. WhatsApp (Samuels, 2020). Conspicuously, the reach of fake news cannot be underestimated during the

critical months of the 2016 U.S. presidential election campaign when hundreds of websites published falsified or heavily biased stories (Allcott & Gentzkow, 2017; Geeng et al., 2020.). Quintessentially, fake news is changing and even distorting how political campaigns are run, ultimately calling into question the legitimacy of elections, elected officials, and governments (Tong et al., 2020). While propaganda, hoaxes, and conspiracy theories are being proliferated online and on other social media platforms (William and Mary Law School, n.d.), it is crucial to understand how people assess and interact with fake news. In the context of the present study, fake news is to be considered as all forms of false, inaccurate, or misleading information designed, presented, and promoted to cause public harm intentionally or for profit.

To better understand how people react to disinformation on social media and in countering fake news, this study tries to find answers to the following research questions:

RQ 1: What attitudes do people have towards fake news?
RQ 2: How do people react to disinformation posts on their social media platforms?
RQ 3: How do people examine whether a post is authentic and reliable?

The present study has implications both for research and the day-to-day life of the general public. The literature review indicates that no study has been conducted in the Indian context on the subject of fake news. It is nevertheless to say that; this piece of research certainly opens new avenues on the discourse of fake news in research and practice. The study's findings provide an insight into countering fake news in India. This study is also valuable for government agencies in formulating policies related to fake news.

REVIEW OF RELATED LITERATURE

It emerges from the review of related literature that the subject of fake news has gained significant attention across the world over the last few years. McNair (2018) investigated the role of media in spreading fake news from the 1800s and 1920s, providing historical background of the term's usage and development over the period. Weiss et al.(2020) explored the concept of fake news among the faculty members at California State University, Northridge (CSUN). The findings demonstrate that 88 percent of faculty members felt that fake news is a matter of concern and affecting everyone regardless of demographics, rank, and discipline in higher education. Barthel et al. (2016) surveyed 1,002 U.S. adults, and the results of the study reveal that about one-third (32%) of U.S. adults perceive that political news stories being disseminated over the internet are made and caused confusion about the basic facts. Sängerlaub (2017) surveyed 1,037 individuals shortly after the German parliamentary elections in 2017. The findings indicate that 61 percent of the respondents had the impression that there were many cases of fake news during the election campaign. Similarly, Allcott and Gentzkow (2017) gathered fake news headlines circulated during the U.S. presidential elections. The researchers further asked 1,208 survey participants whether they had seen those headlines during the election campaign and accepted them as true. They disclosed that 15 percent of the respondents reported that they had seen those fake news headlines, whereas 8 percent of the respondents also believed them. In the same line, Tong et al.(2020) examined the opinions of the general public about fake news using a national survey of U.S. adults. The results reveal that the general public considered fake news as a weapon to criticize and delegitimize political opponents. Furthermore, Del Vicario et al. (2016) found that fake news propagation usually occurs within homogeneous groups of users having similar ideologies. McGivney et al. (2017) suggested that information literacy should be

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inculcated among students so that they can evaluate and ascertain the credibility of the news. The review of the literature clearly shows that over the past few years, various studies have been conducted in the spectrum of fake news. But so far, no research has been undertaken in the Indian context. Therefore, this study aims to examine people's attitudes towards fake news and to understand tactics already been used to counter disinformation in India.

RESEARCH METHODOLOGY

The investigators have adopted a survey method to investigate the general public's attitude towards fake news in India. The present study employed a quantitative research technique by utilizing a questionnaire for data collection. The elements used in the questionnaire to operationalize the constructs were taken from earlier researches (Lee, 2019; Reuteret al., 2019; Zhang &Ghorbani,2020, SurveyMonkey Inc., 2020). It is worth mentioning that the delegate populace for the present study includes the general public residing in India. Therefore, the investigators made some of the changes in the questionnaire to make it clearer, unambiguous, exhaustive, and to fit the present study in context. The questionnaire was validated on 50 respondents to decide whether the questions' language and their estimations were suitable and straightforward to comprehend. Based on their feedback, some of the jargon and technical words were removed. The questionnaire entails two sections; the items include the demographic details of respondents, awareness about fake news, an encounter with fake news, attitude towards fake news, and interaction with fake news on social networks, etc.

The survey was conducted through an online questionnaire from June 1 to July 31, 2021. Snowball sampling method was used to convey invitations describing the inspiration for the survey with a self-guided hyperlink to the server through Facebook, LinkedIn, Instagram, Twitter, Telegram, and WhatsApp. The invitation urged individuals to distribute the questionnaire to their contacts. The questionnaire distribution among the individuals was exclusively founded on the study's criteria of interest and motivation. Overall, 217 responses were received after many follow-ups. Out of 217 questionnaires, 17 questionnaires were incomplete, hence discarded. The remaining 200 complete questionnaires were used for the analysis of the data.

The respondents who participated in the study were from six major smart cities of India viz. Bhubaneswar, Pune, Jaipur, Surat, Ludhiana, and Kochi. The gathered data was then coded and inserted in SPSS version 23.0 and analyzed through descriptive statistics.

RESULTS

Demographic Profile of the Respondents

The demographic characteristics of the respondents were grouped into four categories: gender, age, educational qualification, and occupation. The demographic summary of participants is demonstrated in table 1. A total of 200 individuals partake in the study. A large majority of the respondents were male (64.5%) compared with female respondents (34.5%). Furthermore, most of the respondents were in the age group of 26-35 years (56.5%), followed by the age group of 15-25 years (23%), 36-45 years (16%), and 46-55 years (4.5%). In terms of educational qualifications, the majority of the respondents

have a master's degree (48%) followed by a Ph.D. degree (33%), bachelor's degree (13%), secondary (4%), and senior secondary (2%). While coming to the occupation of respondents, the majority of the respondents were students (51%), followed by employed (33%), unemployed (11%), others (4.5%), and housekeepers (0.5%).

Table 1. Demographic profile of the respondents

Characteristic	Category	No. of respondents (N=200)	Percentage
Gender	Male	131	65.5%
	Female	69	34.5%
Age	15-25	46	23%
	26-35	113	56.5%
	36-45	32	16%
	46-55	09	4.5%
Educational Qualification	Secondary	08	4%
	Senior Secondary	04	2%
	Bachelor's degree	26	13%
	Master's degree	96	48%
	Doctorate	66	33%
Occupation	Student	102	51%
	Employed	66	33%
	Unemployed	22	11%
	Housekeeper	01	0.5%
	Other	09	4.5%

Electronic Devices Used to Access Information/News

Respondents were asked about the electronic devices used by them for seeking information/news. As shown in table 2, an overwhelming majority of the respondents (92.5%) used smartphones in accessing information/news, followed by laptop computers (36%), television (22.5%), desktop computers (13%), and tablets (9%).

Table 2. Electronic devices used to access information/news

Electronic devices	No. of respondents (N=200)	Percentage
Smartphone	185	92.5%
Laptop Computer	72	36%
Television	45	22.5%
Desktop Computer	26	13%
Tablet	18	9%

(Multiple responses were permitted)

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Awareness About Fake News

In this section, investigators want to know the cognizance of respondents about fake news, whether they are aware of it or not, because this study explores people's attitudes towards fake news. Table 3 reveals that all the respondents who participated in the study were about the concept of fake news.

Table 3. Awareness about fake news

Awareness	No. of respondents (N=200)	Percentage
Yes	200	100%
No	0	0

Encounter With Fake News

In today's time, fake news is being propagated through various communication channels; therefore, it is crucial to identify specific channels primarily used to spread fake news among the general public in India. Table 4 discloses that a vast majority of respondents (94%) encountered fake news on social media platforms (WhatsApp, Facebook, Twitter, YouTube, Instagram) followed by television (news channels) (61.5%), oral communication (51%), newspaper (31%), and magazines (7%). Moreover, respondents were further asked whether they think that on the internet/ social media platforms, the chances for people to fall for "fake news" are higher or not. Table 5 shows that an overwhelming majority of respondents (98.5%) believed that people's chances to fall for "fake news" are quite higher on the internet/social media platforms compared to the other communication channels. Furthermore, table 6 discloses that WhatsApp (90%) and Facebook (81%) were found to be the two topmost social media platforms frequently used to spread fake news among the general public in India.

Table 4. Encounter with fake news

Communication channel	No. of respondents (N=200)	Percentage
Social Media Platforms (WhatsApp, Facebook, Twitter, YouTube, Instagram)	188	94%
Television (News Channels)	123	61.5%
Oral Communication	102	51%
Newspaper	62	31%
Magazines	14	7%

(Multiple responses were permitted)

Table 5. Fake news on the internet and/or social media platforms

Do you think that on the internet and/or social media platforms, the chances for people to fall for "fake news" are higher?	No. of respondents (N=200)	
	Yes	No
	197 (98.5%)	3 (1.5%)

Table 6. Social media platforms used for spreading fake news

Social media platforms	No. of respondents (N=200)	Percentage
WhatsApp	180	90%
Facebook	162	81%
YouTube	100	50%
Twitter	70	35%
Instagram	3	1.5%

(Multiple responses were permitted)

Attitude Towards Fake News

In this section, respondents were asked to indicate their degree of agreement or disagreement with certain statements representing their attitude towards fake news on a five-point Likert scale ranging from strongly agree to strongly disagree. Table 7 demonstrates that a large proportion (93.5%) of the respondents agreed (combining strongly agree and agree) with the statement that 'fake news poses a threat. Furthermore, 78.5 percent of the respondents strongly perceived that 'fake news harms the democracy'. Most (87.5%) of the participants(combining agree and strongly agree) believed that 'fake news can manipulate the opinion of politicians, journalists, and other influential players. It also emerges that 92 percent of the respondents either agreed or strongly agreed with the notion that 'fake news can manipulate the people's opinion'. Moreover, 81 percent of respondents considered that 'it is the government's task to prevent fake news. On the other hand, 65 percent of respondents strongly agreed with the statement that 'it is the task of the operators of various social media platforms to prevent fake news if the fake news is propagated through these platforms'. It can be concluded that the majority of the respondents understand the potential risks associated with fake news.

Interaction With Fake News on Social Networks

Here an attempt is made by the investigators to disclose the pattern of interaction of respondents with fake news on social networks. Table 8 shows that most (64%) of the respondents indicated that they generally perceived fake news. Moreover, 73.5 percent of the respondents stated that they never commented on fake news, and only 2.5 percent of the respondents admitted that they had shared fake news. Conspicuously, 80 percent of the respondents affirmed that they had deleted fake news and 65.6 percent of the respondents claimed that they had reported fake news.

Table 7. Attitude towards fake news

Attitude towards Fake News	Respondents ratings (N=200)				
	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
Fake news poses a threat	157 (78.5%)	30 (15%)	10 (5%)	1 (0.5%)	2 (1%)
Fake news harms the democracy	157 (78.5%)	30 (15%)	8 (4%)	3 (1.5%)	2 (1%)
Fake news can manipulate the opinion of politicians, journalists and other influential players	116 (58%)	59 (29.5%)	18 (9%)	4 (2%)	3 (1.5%)
Fake news can manipulate people's opinions.	140 (70%)	44 (22%)	13 (6.5%)	0	3 (1.5%)
It is the government's task to prevent fake news	123 (61.5)	39 (19.5%)	24 (12%)	7 (3.5%)	7 (3.5%)
It is the task of the operators of various social media platforms to prevent fake news if the fake news is propagated through these platforms	130 (65%)	45 (22.5)	21 (10.5%)	3 (1.5%)	1 (0.5%)

Table 8. Interaction with fake news on social networks

Interaction with Fake News	No. of respondents (N=200)	
	Yes	No
I generally perceived fake news	128 (64%)	72 (36%)
I commented on fake news	53 (26.5%)	147 (73.5%)
I shared fake news	5 (2.5%)	195 (97.5%)
I deleted fake news	160 (80%)	40 (20%)
I reported fake news	131 (65.5%)	69 (34.5%)

Areas of Public Life Harmed by Fake News

Respondents were asked about the areas of public life which are most harmed by fake news in India. As demonstrated in table 9, religious harmony (92%), voting decisions (67.5%), and trust in public institutions (53.5%) were found to be the three topmost areas of public life that are mostly targeted by fake news. On the other hand, the least targeted areas of public life were education policies (35.5%) and migration issues (34.5%).

Agents Creating and Disseminating Fake News

Participants were asked to indicate the following agents who are creating and disseminating fake news among the general public in India. From table 10, it can be seen that the top five agents creating and disseminating fake news were politicians (80%), political parties (77%), journalists (69%), social media activists (66%), and religious/spiritual leaders (57.5%).

Table 9. Areas of public life harmed by fake news

Areas of public life	No. of respondents (N=200)	Percentage
Religious harmony	184	92%
Voting decisions	135	67.5%
Trust in public institutions	107	53.5%
Trust in elected representatives	101	50.5%
National security	94	47%
Economy and finance	85	42.5%
Health policies	75	37.5%
Education policies	71	35.5%
Migration issues	69	34.5%

(Multiple responses were permitted)

Table 10. Agents creating and disseminating fake news

Agents	No. of respondents (N=200)	Percentage
Politicians	160	80%
Political parties	154	77%
Journalists	138	69%
Social media activists	132	66%
Religious/Spiritual leaders	115	57.5%
Corporations, business houses	50	25%
Academia	14	7%

(Multiple responses were permitted)

Accuracy and Reliability of Information/News

Respondents were asked to point out the methods through which they ascertain the credibility of the information/news. From table 11, it can be seen that the top three methods which are being used by the respondents to determine the credibility of the information/news were 'I use fact-checking websites to know whether the news is real or fake' (62.5%), 'I look at the name of the publisher to see if it is a reputable source of information (60.5%), and 'I ask someone who I trust if they think the news is real or fake' (45%).

Dealing With Fake News

In this section, respondents were asked to indicate the most suitable measure to deal with the activities of fake news. Table 12 demonstrates that the top three measures as suggested by the respondents were 'quick reaction of the authorities to set right evil and made up things immediately' (71%), 'establish state IT centers of defense' (68%), and 'transparent and self-critical journalism' (65%).

Table 11. Accuracy and reliability of information/news

Methods	No. of respondents (N=200)	Percentage
I use fact-checking websites to know whether the news is real or fake	125	62.5%
I look at the name of the publisher to see if it is a reputable source of information	121	60.5%
I ask someone who I trust if they think the news is real or fake	90	45%
I question everything all the time because I am skeptical about everything on the internet	72	36%
I ignore most things I see because I realize most information is questionable	70	35%
I look at the URL address to see if there is a click-bait tracker	65	32.5%
I assume what I'm reading must be true because it's published	43	21.5%
I don't question the validity of what I'm reading because all things on the internet are accurate	13	6.5%

(Multiple responses were permitted)

Table 12. Dealing with fake news

Measures	No. of respondents (N=200)	Percentage
Quick reaction of the authorities to set right evil and made up things immediately	142	71%
Establish state IT centers of defense	136	68%
Transparent and self-critical journalism	130	65%
Obligation of operators to remove evil invented from the net	125	62.5%
Obligation of operators to mark fake news as such	114	57%
Aggravate penal provisions	70	35%

(Multiple responses were permitted)

CONCLUSION

From the research perspective, this study has addressed the knowledge gap, for it is probably one of the few available studies conducted in the spectrum of fake news in developing countries like India. The findings of this study disclosed that the general public in India is aware of the concept of fake news and has a negative attitude about it. Furthermore, they also understand the potential threats attached with fake news. Notably, most of the respondents agreed that fake news poses a threat and also harms democracy. Religious harmony and voting decisions are the key areas of public life that are mostly targeted by fake news in India. Furthermore, politicians, political parties, and journalists are the three main agents who are creating and disseminating fake news among the general public in India. The top three measures suggested by the respondents to stop the incidents of fake news are 'quick reaction of the authorities to set right evil and made up things immediately', 'establish state IT centers of defense', and 'transparent and self-critical journalism'. In the same way, Batchelor (2017) suggested that libraries can also play a central role in the fight against fake news by increasing the general public's awareness regarding fake news and initiating training programs to promote sustainable information seeking/evaluating practices.

The present study has theoretical as well as practical implications. It is anticipated that the findings of this study could help government departments to curtail the spread of fake news in India. They may utilize this study as a reference guide for developing suitable strategies to keep the general public aware and safe from the fake news which is being propagated on various social media platforms. Through its findings, the present research is expected to contribute to the existing body of literature published in the field of fake news.

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Appendix 1: Global Survey Responses

Sections

- Survey I. Impact of COVID-19 on the LAM sector: A Global Survey
- Survey II. Post COVID-19, A Global Survey of Digital Preparedness

Note: Highlights here are from a select sample. All the Questions are listed at the end. Full analysis and discussions are available on request from the author.

CONTENTS

Topics Covered in Survey I (During COVID-19, strategies for coping with unpredicted/unpredictable change):
Civic Interfaith Reference Inquiry (Table 3);
Collaborative initiatives of LAM (Table 4);
Demystifying Collaboration Process (Figure 1);
Four constructs of Civic Engagement (Figure 1b);
LAM's educational programs (Figure 1a);
LAM's activism COVID-19 (Table 5);
Reducing Digital Divide as Strategy to build digital resilience (Table 2);
What are barriers to digital inclusion (Table 7);
Topics Covered in Survey II (For a stable and harmonious continuity in a new normal):
Are Names of Museum confusing (Table 10);
Civic literacy movement, Movers (Table 15);
COVID-19 and LAM's Activism (Table 14);
Digital inclusion (SJ & CE – common factor) (Table 17);
Digital Readiness, how far (Table 8);
The job market, post-COVID-19 (Figure 6);
Empowering citizens (Table 13);
Books on Collaboration (Table 12);
Professional Education Table 16);
Racist content (Figure 7);
Resources for diversity and inclusion (Figure 5);

Smart City in the eye of the beholder (Figures 2 & 3);
What are barriers to digital inclusion (Table 7);
What Tools are most preferred (Table 9);
What Works in Intercultural literacy (Table 11).

Conclusion

INTRODUCTION

BEYOND THE PANDEMIC What should we do? #2 Tackle the digital divide The pandemic is forcing us to change direction, to rethink what we do and how we do it. We ask our experts: where should we go from here?... We need to raise digital awareness for people who cannot afford the internet, or do not understand its benefits, or are intimidated by a digital world. We need to remember the role that libraries, community centres, education settings, volunteers and local digital champions can play in providing digital access, and ensure this support is protected and funded. … Digital exclusion is a new form of social deprivation, exacerbated by existing lines of inequality and poverty, and as the world gets 'smarter', the divide gets wider. What does it mean to live in a Smart City if you are digitally excluded? (Burgess, 2020, p. 1)

A major theme in LAM's literature is the impact on the digital services during COVID-19 and digital preparedness in the post-COVID era. Hence, a survey of LAM professionals and others was conducted. The aim was first, to get a sense of the changes to continue to serve during the COVID-19 and second, about digital readiness to identify the factors that matter in such troublesome times and the aftermath.

Method

The two surveys were conducted during March-April 2021, have received a very good response, from across countries, and LAM sectors. Invitations describing the intent with a self-guided hyperlink to the server through Facebook, LinkedIn, Instagram, Twitter, and WhatsApp. The invitation was also circulated through academic forums (IFLA Section Academic and Research, The Museum of Museums, Association of British Theological and Philosophical Libraries, American Theological Library Association, GLAM-Wiki Global, BU Library Archives and Museum; <aisworld@lists.aisnet.org>, <ica-l@mailman.srv.ualberta.ca>, <dlf-announce@lists.clir.org>, dig_ref@listserv.syr.edu, AISWorld, aisnet.org, www.CFPlist.com. Announcements | H-Net (h-net.org), librarywriting.blogspot.com, etc.) with a request to distribute the questionnaire to their contacts.

Results

Discussed with the data in figures and tables, directly represents, by and large, the collective wisdom of the professionals from respective LAM institutions. The ideas and experiences from the field represent the ongoing challenges and solutions. There is a significant level of alternatives in the responses. Such alternatives are a good reflection and of value to the decision-makers.

Outcome

Digital preparedness in the LAM sector is an essential input for the respective institutions to formulate their future directions.

SURVEY I. THEME: IMPACT OF COVID-19 ON THE LAM SECTOR

The goal of the Survey:

● Identify strategies that work according to the wisdom of the practicing professionals?

ANALYSIS OF THE RESPONSES

Q. 3. Organizational Affiliation

Table 1. By Job Affiliation

Affiliation by Type of organization	Response %
Libraries	45
Archives	14
Museums	11
CBO	16
Other	14
Total	100

In Table 1 nearly half the responses are from the library and information science. Similar is the proportion of responses in Survey II (Figure 1c). And, interestingly many other surveys in the LAM Sector have a very close response pattern. For example, Huvila's (2011) Web survey of Swedish professionals conducted in February-March 2011, received 42% responses from Library, 29% from Archives, and 16% from Museum.

Q 4. Reducing Digital Divide during COVID-19

Digital divide or digital exclusion has been a major challenge, even in the pre-COVID era (as illustrated in Table 2). Hence, the question is asked to the collective wisdom, as to which literacy will be more essential during COVID-19. Fake media literacy and hate crime literacy were considered most essential by library professionals. While archives and museums, professionals indicated Environmental Justice literacy as the most crucial area.

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Table 2. Role of LAM in Reducing Digital Divide as Strategy to build digital resilience

	Environmental Justice literacy	Civic Interfaith literacy	Cybercrime literacy	Fake media literacy	Gender literacy	Racial literacy	Hate crimes literacy	Other
Libraries	25	44	40	48	40	30	45	40
Archives	35	23	26	11	23	29	31	6
Museums	26	11	13	16	11	11	9	9
CBO	11	11	7	22	22	23	16	20
Other	7	9	7	4	3	3	0	13
Total	104	98	93	97	99	86	101	88

Q.5 Better Together: Demystifying the Collaboration Process

The purpose of this question is to identify different approaches that libraries and community-based organizations can take to reveal what happens during collaboration.

LAM within and with community-based organizations are collaborating at some level in the information literacy movement. One middle school library survey, for example shows "One-third (35%) partner with a public library and 29% partner with local high school libraries. Almost half (46%) don't partner at all with other libraries survey reports. (Sarjeant-Jenkins & Walker, 2015). There is a gap in understanding the background of the library-community partnership is a major issue. The following questions help to start a research study? The respondents have very interesting perspective.

In Figure 1 are the responses. 'Who initiated this collaboration, where and when?' Responses: 65% say don't know, 12% No, and 23% yes)? 'Did this experience get documented (with details such as, lessons learned)'? Responses: 10% say No, 51% say don't know, and 39% say yes. A majority in the sample

Figure 1. Better Together: Demystifying the Collaboration Process
*Scale: **No**, absolutely not the right choice; **Don't** know; **Yes**, absolutely right*

5. There is a gap in understanding the background of library-community's partnership. If yes, will the following questions help to start a research study (optional).
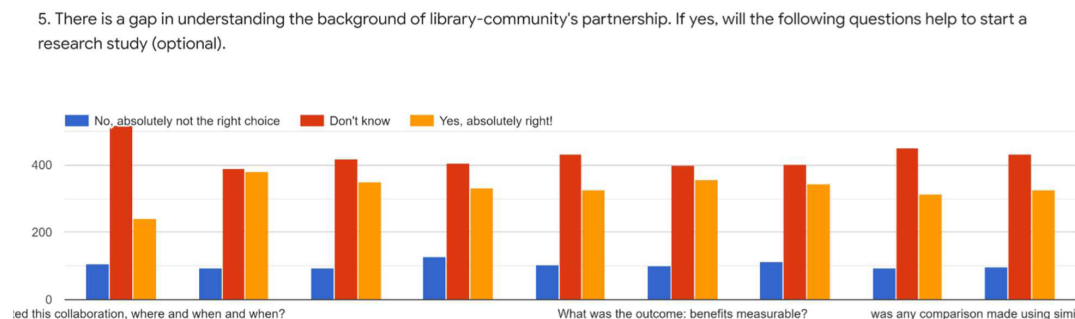
Legend (Figure 1): Who initiated this collaboration, where and when and when? Why did the library choose to be a partner with X and not Y? What were the negotiations to meet the needs of each party Is there a Memorandum of Agreement with start and end date or about extension? What challenges were faced before and after the starting date--& factors predominant within their collaborations? What was the outcome: benefits measurable? Did this experience get documented (with details such as, lessons learned)?) Where the results made public, anyways? was any comparison made using similar case studies?

says don't know. Either it refers to their knowledge about such projects or lack of dissemination of such data. This short sample does not permit generalization, hence a detailed study in the future may have clear results. And, the results will provide insights to the LAM's leadership.

Q. 6. Civic Interfaith Reference Inquiry

Six options were given (Table 3) to rate the level of importance of each strategy. Important because the pandemic brought isolation and loneliness. Hence social and cultural relevance of this question is how LAM could be of help in matters relating to health and wellness. Three of the six options are internal, viz., display, review, and browsing the shelf. Three are external, viz, collaboration, expert advice, and consultation. Most felt the list of options was very much timely and relevant to the current mood and conditions of the society. A majority of respondents believe the six suggested strategies are relevant, only a few would say these are most relevant, and a small minority says all these are least relevant.

Table 3. Civic Interfaith Reference Inquiry

	Least relevant	**Most relevant**	**Relevant**
Display resources according to the faith	15	11	79
Percentage	14%	10%	75%
Partner with a school library that conducts such programs	18	21	63
Percentage	18%	21%	62%
Approach a library that offers an interfaith prayer area	15	26	60
Percentage	15%	26%	59%
Ask an expert at a library that lends free eBooks to the kids for promoting peace	16	32	61
Percentage	15%	29%	56%

Q. 7. Most of the LAM's educational programs do not include digital literacy (esp., for subject such as, Social Justice or Civic Engagement). Who you think must offer this digital literacy training? (optional)

Figure 1a Overall, 60% of the respondents preferred that 'Libraries, Archives, Museums (LAM) Practitioners' take up this role. Whereas, many others had a mixed response (viz., ranging between LAM Graduate education program, IT Labs on the campus, to Community-based organizations (CBO).

Figure 1a. LAM's educational programs

7. Most of the Library, Archive and Museum's university programs do not include digital literacy (esp., for subject such as, Social Justice or Civic En... must offer this digital literacy training? (optional)
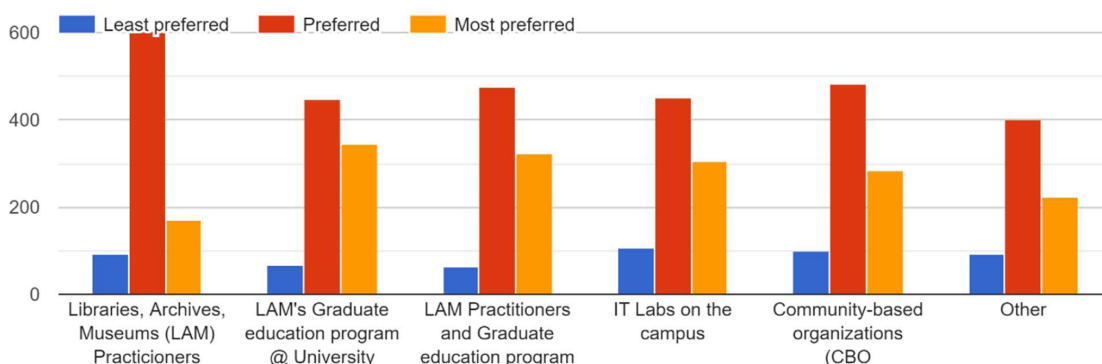
Legend (Figure 1a): Libraries, Archives, Museums (LAM) Practicioners; LAM's Graduate education program @ University; LAM Practitioners and Graduate education program; IT Labs on the campus; Community-based organizations (CBO); Other.

Q. 8. Collaborative initiatives of LAM

Table 4 is a sample catalog that comprises 29 initiatives in the LAM sector, across the globe. Comparing these is not the purpose. The aim is to first list the collaborative initiatives made by LAM's, local and global, to work together, and second to identify the level of familiarity about these initiatives, mostly among the professional audience. Ranking on the top is the Canadian Association of Heritage Professionals, ranked two is Children's Hunger Alliance, the COVID response with Public Libraries, OHIO, USA. The two largest, American initiatives, REALM, and OCLC are both at 12ᵗʰ rank. Does this mean, information professionals are not very familiar, or are they more familiar with non-American initiatives? Likewise, National Library, India is at 8th rank and British Library is at 15th rank. Incidentally, both these libraries have a common foundational history, viz., British hegemony. While the above four instances refer to organizational side, the professional groups (or sectoral forum), also have a similar pattern, e.g., The Clore Leadership for British professionals in the cultural sector (ranked 14) and Canadian Association of Heritage Professionals (ranked 1).

Comparing perceptions again reveals interesting facts. Herein, 35% of respondents, most from the LAM sector are familiar about, "Children's Huorganizationsnger Alliance, the COVID response with Public Libraries, OHIO;" whereas, only 17.7% were familiar with "OCLC, IMLS, and Battelle COVID-19 Research Partnership.

Table 4. Collaborative initiatives to advance role-playing outside the box

Name of the Organization or Initiative	Familiarity	Rank
1. American Alliance of Museums	20.3%	9
2. Ashmolean Museum UK., oldest surviving museum in the world (Hedstrom & King)	20.3%	9
3. Association of Tribal Archives, Libraries, and Museums. OK, USA	24.9%	4
4. At once a national library, national archives, and public library Québec, Canada (BANQ)	24.9%	4
5. Canadian Association of Heritage Professionals	35%	1
6. Children's Hunger Alliance, the COVID response with Public Libraries, OHIO	35%	1
7. Curatours & Historic Environment Scotland	30.4%	3
8. Cuseum: The Museum Engagement Platform.	30.4%	3
9. Food from peace: breaking the links between conflict and hunger IUCN Library	24.1%	6
10. Galleries, Libraries, Archives, Museums (GLAM)	24.1%	6
11. ICOM International Council of Museums	31.1%	2
12. ICON Care of Collections Group	31.1%	2
13. Imperial Library, the National Library, serves as a public library in Calcutta India	21.6%	8
14. Institute of Museum and Library Services (IMLS)	21.6%	8
15. Libraries And Museums In An Era Of Participatory Culture (Salzburg Global Seminar,)	24.8%	5
16. Library and Archives Canada merged in 2007	24.8%	5
17. Most recent merger: Ottawa Public Library and Library and Archives Canada (Mahmud)	22.1%	7
18. National Emerging Museum Professionals Network	22.1%	7
19. National Trust for Canada - Bringing heritage to life	19.1%	11
20. NEMO (Network of European Museum Organizations)	19.1%	11
21. OCLC, IMLS, and Battelle COVID-19 Research Partnership ...	17.7%	12
22. REopening Archives, Libraries, and Museums (REALM) OCLC	17.7%	12
23. The Aspen Institute Dialogue on Public Libraries, in conjunction with Knight Foundation (CO., USA)	13.5%	15
24. The British Library was part of the British Museum until 1962.	13.5%	15
25. The Clore Leadership for British professionals in the cultural sector	14.5%	14
26. The LAM is arguably the oldest example of knowledge organizations. (Hedstrom & King)	14.5%	14
27. The Library was founded in 1800, making it the oldest federal cultural institution (loc .gov)	19.2%	10
28. The Louvre, Paris, France, is the largest art museum in the world	19.2%	10
29. The Museums, Libraries and Archives Council (UK)	15.4%	13

Q. 9."Four Constructs of Civic Engagement: 1. Civic Action 2. Civic Commitment 3. Civic Skills democracy. 4.Social Cohesion, " (youth. gov). Does it fit your local needs? (optional).

In figure 1b the overall result shows, 72%, 45%, 60%, and 54% how the respondents feel about the respective four constructs locally, somewhat fits.

Figure 1b. Four Constructs of Civic Engagement
Scale: Does not fil at all; Somewhat fits; Very well fits.

9."FOUR CONSTRUCTS OF CIVIC ENGAGEMENT: 1. Civic Action 2. Civic Commitment 3. Civic Skills
democracy. 4.Social Cohesion, " (youth . gov). Does it fit your local needs? (optional).
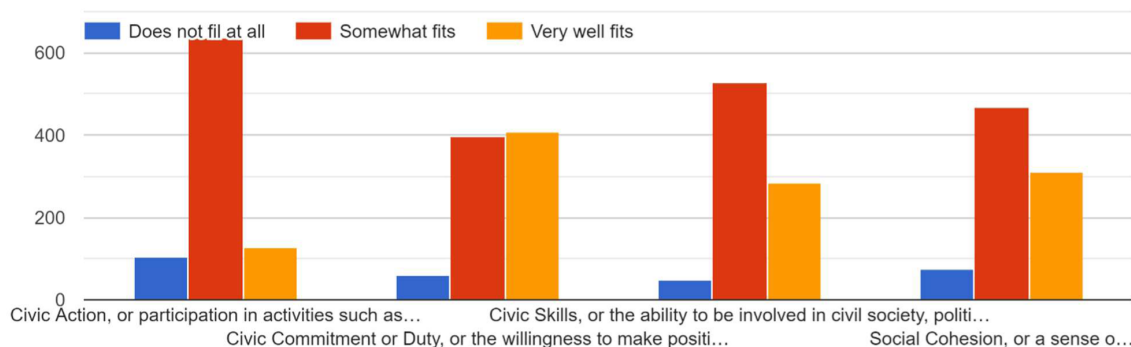
Legend (Figure 1b): Civic Action, or participation in activities such as volunteering or service-learning to help better the community; Civic Commitment or Duty or the willingness to make positive contributions to society; Civic Skills, or the ability to be involved in civil society, politics, and democracy; Social Cohesion, or a sense of reciprocity, trust, and bonding to others.

This question Nine was supposed to compare the CE elements with elements of SJ. For example, the SJ elements as referred in a LIS context: "diversity, inclusion, community and multiculturalism to weave social justice elements" (Bertot & Jaeger, 2016, p.309). But since there is no clear CE's description of elements in-hand, the above mentioned four constructs provide a clear alternative to move ahead. A future study can compare CE and SJ elements as it applies to the LAM sector. Another area is measuring the impact of CE/SJ in LAM sector (Sunlight Foundation, n.d. P. 1)

Q. 10. LAM's Activism Reported in News Headlines during COVID

In Table 5 there is a mix of organizations, new headlines, and media coverage. The respondent's familiarity seems to be amazing. The ranked top is two educational topics (viz., Rank 1 and 2). Whereas informational resources are at ranks 3, 5, etc., Vaccines are at 10th rank. Library (among the LAM), 5th rank; Museum 2nd, and Archive at 3rd rank. Does this mean that in terms of the dissemination &/or outreach libraries need more PR to be visible and in the community? 30% of respondents, most from the LAM sector are familiar with "Share your COVID-19 Remote Learning Stories!"; whereas only 20.3% were familiar with "COVID-19 Resources & Information for the Museum Field." American Alliance of Museums.

Table 5. COVID-19, LAM activism and media highlights

Media Headlines	Familiarity	Rank
Teaching Museum Studies During a Global Pandemic (NYFA)	30%	1
Share your COVID-19 Remote Learning Stories! (Fulton County Schools)	30%	1
IFLA -- COVID-19 and the Global Library Field	28.7%	2
COVID-19 Resources	Ontario Museum Association	28.7%	2
Teaching about archival processing during COVID-19; (Archivist Rising)	28%	3
JOTPY Teaching Module Four: Archival Silences	28%	3
COVID-19 Teaching Resources (Churchill County Museum & Archive)	27.1%	4
COVID-19 Teaching Archive (Aess)	27.1%	4
COVID-19 Resources for Libraries and Museums (IMLS)	24.6%	5
Pandemic Preparedness	Tools, Publications & Resources (ALA)	24.6%	5
Test the Waters Family Exploration Kit (NLM)	24.4%	6
Spark Gallery - Spark Gallery is doing videos of what they are doing	24.4%	6
Teaching with the Museum: partnership as pedagogy (Art History Teaching)	24.3%	7
Pandemic And Protest - Tang Teaching Museum	24.3%	7
Snapshot of a School Library During COVID-19 (.au)	20.3%	8
COVID-19 Resources & Information for the Museum Field (AAM)	20.3%	8
Community Literacy as Civic Dialogue (Coogan, David Community Literacy Journal,)	19.7%	9
11 tips for being civically engaged during the COVID-19 pandemic (BY SHAUN ROJAS, klcjournal.com)	19.7%	9
Philanthropy During COVID-19: The Urgency of a Diversity, Equity, and Inclusion (DEI) Lens (PhiLab)	18.2%	10
Adopting human rights law as a rubric for allocating COVID-19 vaccines (uwo)	18.2%	10
Civic Engagement During a Pandemic Transcript (TWU)	18%	11
Unfinished. Revisiting Horse, A Pre-COVID Project To Support Social Action In Rural Museumthe Incluseums Part 3	12.1%	12
'Some Makers Have Had the Most Incredibly Productive Period' (Crafts Council)	12.1%	13

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SURVEY II. THEME: POST COVID-19, A GLOBAL SURVEY OF DIGITAL PREPAREDNESS

The goal of the Survey:

- As against the first survey, this second survey aimed at finding the implications of COVID-19 and how changing times have an impact on people, policies, products as well future planning by LAM.

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ANALYSIS OF THE RESPONSES

Q. 2. Location of the respondents

Table 6. Residence arranged by Continent

Continents	Responses	Rank
N. America	69%	1
Australia / Oceania	3%	5
Asia	20%	2
Europe	5%	3
Africa	4%	4

The population surveyed is across counties (Table 6) and sectors (Figure 1a), and disciplines (Table 6a). What makes the present attempt a significant venture is the fact that the survey is an exploration across disciplines and stakeholders (i.e., LAM's, and CBO's). Although not comprehensive and exhaustive, it opens up windows and doors for IDEA lens to be applied, in a future survey.

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Q. 4. Respondents Affiliation

By getting a response on the topic of affiliation with LAM (i.e., information professionals), facilitates in presenting here their collective wisdom. Affiliation with non-LAM's, i.e., stakeholders, such as community-based organizations (CBO) ensures and indicates inclusiveness in the approach to gather the pulse of the times.

Figure 1c. Organizational affiliation

4. What is the type of organization you are affiliated with?
103 responses

- Archive
- Library
- Museum
- Records management
- Community-based organization
- Other

14.6%
9.7%
13.6%
17.5%
39.8%
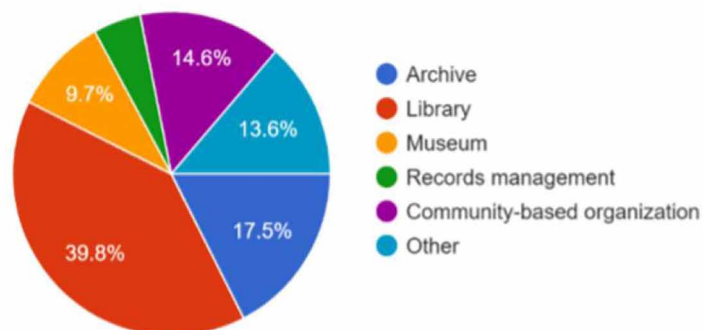
Q. 5. Area of specialization of the respondents

By an overview in Table 6a shows, the multiple areas the respondents specialize in. It is a good example of dual or multiple roles; i.e., 106 respondents show their strengths in more than one role. Here, practicing professionals are the highest respondents. 31 faculty/researchers are the second largest category. Among the other specializations of 29 professionals, viz., advocacy, social justice, civic engagement, public relations, literacy, and outreach together show the emergence of a role player is either not obvious, or not at all existed in LAM institutions.

Table 6a. Area of specialization

Adult Education	5 (4.9%)	Faculty, LAM	1 (1%)
Advocacy	2 (1.9%)	Faculty, Library Info Science	25 (24.3%)
Archeology	2 (1.9%)	Faculty, Museum, Museology	3 (2.9%)
Architecture	4 (3.9%)	History	2 (1.9%)
Archives	20 (19.4%)	Interfaith, Intercultural specialist	2 (1.9%)
Art	1 (1%)	Interfaith Specialist	1 (1%)
Art gallery, Museum	11 (10.7%)	Justice, Law, Legal Studies	0 (0%)
Chaplain	1 (1%)	Library / Information Management	38 (36.9%)
Civic Engagement	2 (1.9%)	Minister of Religion	0 (0%)
Conservation	2 (1.9%)	Museum	9 (8.7%)
Counsellor	4 (3.9%)	Outreach	2 (1.9%)
Curator, Archives	8 (7.8%)	Public Relations	5 (4.9%)
Curator, Museum	2 (1.9%)	Records Management	11 (10.7%)
Community-based organization (information professionals)	5 (4.9%)	Religious Education	0 (0%)
Community-based organization (others)	11 (10.7%)	Religious studies	2 (1.9%)
Community volunteer	7 (6.8%)	Research	11 (10.7%)
Digital (Information) literacy	12 (11.7%)	Social Justice	6 (5.8%)
Digital preservation	5 (4.9%)	Social work	4 (3.9%)
Faculty, Archival Science,	1 (1%)	Other	1 (1%)

Q. 6. Barriers to digital inclusion

Barriers or challenges vary from each institution (Table 7). For example, The topmost (ranking highest, i.e., one) barrier in the library is Self-checkout; for Archives it is Practical Blockchain, for museums and CBO it is Keyless entry. Whereas, Streaming Internet (essential for live relay and online instant delivery) is ranked as second top ranking, in the library, sixth in archives, fourth in Museum, and seventh for CBO. Lack of knowledge and skills is at third topmost rank in Library and Archives, and at 7th rank for Museum and 4for CBO. In short, as is the distinctness of each LAM's, so is the ranking. None of the ranks among the channels match. Each is faced with a distinct level of identity and so is its distinct challenge.

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Table 7. barriers to digital inclusion

	Libraries	Rank	Archives	Rank	Museums	Rank	CBO	Rank
Self-checkout	31	**1**	6	4	17	7	9	8
Percentage	49%		10%		27%		14%	
Keyless entry	13	11	3	7	27	**1**	24	**1**
Percentage	19%		4%		40%		36%	
Streaming Internet	25	2	4	6	20	4	12	7
Percentage	41%		7%		33%		20%	
Organizational Transformation	16	10	6	4	24	2	16	5
Percentage	26%		10%		39%		26%	
Practical Blockchain	19	6	10	**1**	19	5	14	6
Percentage	31%		16%		31%		23%	
Radio Frequency Identification (RFID)	21	4	5	5	12	9	19	3
Percentage	37%		9%		21%		33%	
Artificial Intelligence	19	5	7	3	21	3	23	2
Percentage	27%		10%		30%		33%	
Lack of knowledge and skills	24	3	7	3	17	7	17	4
Percentage	37%		11%		26%		26%	
No proper roadmaps for inclusiveness	17	9	6	4	19	5	23	2
Percentage	26%		9%		29%		35%	
Confidence	18	10	8	2	11	20	19	3
Percentage	32%		14%		20%		34%	
Motivation	21	4	7	3	13	8	8	9
Percentage	43%		14%		27%		16%	

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Q. 7. Digital Readiness

In Table 8, most of the respondents feel their organization is planning – Libraries rank topmost. Whereas already implemented, the highest is the Archives. In the turbulent times of COVID-19 social distancing, remote access, etc., increased the need for digitalization and virtual access. Among LAM, those who feel Not Ready, Library (65%) reveals the topmost rank; and Museum (63%) shows the second-highest as hence very significant in gathering the collective wisdom.

Tables 7 and 8 have one thing in common. Both deal with a distinct function or purpose. And, a reason for facing barriers, about its digital readiness, can be verified. But that verification needs a larger sample, and hence no conclusive inference can be drawn here. For instance, Keyless entry in the case of the Museum (Table 7) is the topmost challenge. Whereas Museum is the second top in terms of getting ready (Table 8). Contrary to this, Archives are facing the biggest challenge in implementing Practical

Blockchain. Although, overall among the three LAM institutions, Archives is the technology-wise top-most -- having already implemented much of its technology.

Table 8. Digital Readiness

	0 (Not ready)	**3 (Getting Ready)**	**5 (already implemented)**
Libraries	10	64	24
Percentage	10.20	65.31	24.49
Archives	17	40	27
Percentage	20.24	47.62	32.14
Museums	19	53	11
Percentage	22.89	63.86	13.25
CBO	27	50	12
Percentage	30.34	56.18	13.48
Others	26	39	5
Percentage	37.14	55.71	7.14

(scale 0-5, where 0 = not ready, 3=plannning, and 5 = already implemented)

Q. 8. Technological Tools:

Among those (Table 9) who feel **very useful** for any of these tools, remote access to the resources is the top-ranked (e.g., Virtual Private Network or VPN). Likewise, Google Drive as a remote server is the second highest. The highest-ranked among **least useful** is Virtual communication tools (e.g., Zoom).

Table 9. Technological Tools

Tools		**Least Useful**	**Very Useful**
Remote access to the server (e.g., TeamViewer, VPN, Remote Assistance		13	89
	Percentage	13%	87%
Social Media (Facebook, Twitter, Instagram)		31	71
	Percentage	30%	70%
Video call (Zoom/Skype/Google Hangouts)		37	65
	Percentage	36%	64%
Chat programs (MS teams, Slack, etc.)		31	71
	Percentage	30%	70%
Cloud service (Google Drive)		24	78
	Percentage	24%	76%

Q. 9. The name of the Museum, findability, and need for a controlled Vocabulary

And, interestingly (Table 10), 68 responses feel, the name is clear; and that it has no confusion about its name as a MUSEUM!!! "For example, Jack Lohman, Chief Executive Officer of the Royal British Columbia Museum, added that when defining museums, the Committee ought to pay attention to Indigenous museums, as most are "not museums, but cultural centres," yet still accomplish the same role." (Dabrusin, 2018)

Only less than a half, responses felt it was an unclear or confusing name. Most of the respondents who said these are unclear, include, Odditorium and Ingenium. The seven names in Table 10 are just the tip of the concern. There are hundreds of such names. Google Arts & Culture is one major new age venture.

Table 10. The name of the Museum

	Name of the Museum	Unclear	Clear
1	Canadian National Exhibition	22	74
	percentage	23%	77%
2	Google Arts & Culture	29	68
	percentage	30%	70%
3	Museum, Non-traditional	43	54
	percentage	44%	56%
4	Odditorium	62	35
	percentage	64%	36%
5	Ontario Science Centre	**35**	**62**
	percentage	36%	64%
6	Wildlife center	30	67
	percentage	31%	69%
7	Ingenium	55	42
	percentage	57%	43%

Q. 10. Intercultural literacy for civic engagement

Table 11 asked about what is intercultural literacy. Four of the total nine strongly agree on reasons. For example, five four questions echo received 60//% **-** A language of life learned to accommodate the diversity of dress, diet, traditions, etc. Nonviolent communication fosters harmony and peace. A Cultural Literacy program for skills necessary to understand socio-cultural diversity; Wellness, health, and cultural literacy are interconnected in a holistic way of life.

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Table 11. Intercultural literacy for civic engagement

	Strongly Disagree	Neither Agree Nor Disagree,	Strongly Agree
A language of life learned to accommodate the diversity of dress, diet, traditions, etc.	5	55	42
percentage	5	52	42
A nonviolent communication to foster harmony and peace	8	32	62
percentage		34	60
A Cultural Literacy program for skills necessary to understand socio-cultural diversity	8	39	63
percentage	8	37	61
Wellness, health, and cultural literacy are interconnected in a holistic way of life	20	24	60
percentage	5	23	58
It has a greater value if it has a community partnership	11	35	56
percentage	10	34	54
"This type of partnership is not entirely new but it is regularly being re-imagined." (ala.org)	9	54	41
percentage	9	52	39
"Culturally literate can help people understand, relate to and interact with people from diverse backgrounds." abclifeliteracy.ca	8	37	55
percentage	8	37	55
Breaking down the barriers and accepting the other in the society	6	51	42
percentage	6	52	41
"Cultural literacy therefore includes the ability to examine other cultures critically" (Polistina, 2009).	17	45	40
percentage	17	44	39
"understanding and respect for the cultural aspects of sustainability" (Polistina, 2009).	9	41	54
percentage	9	40	52

Question Ten dealt with intercultural literacy for civic engagement. The ten suggested engagement parameters received a mixed response.

Q. 11. Books on LAM's Collaboration

In Table 12, there are eleven titles. Familiarity with so many titles is good news for the publishing industry.

Table 12. Books on LAM's Collaboration

	Book Titles	Not familiar	very familiar
1	Museum and School Partnerships (Fortney & Sheppard, (Eds.).(2010).	28	32
	Percentage	47%	53%
2	Toolbox for Museum School Programs (Toolbox for Museum School Programs, 2016).	55	28
	Percentage	66%	34%
3	A study of a museum-school partnership (Wojton, 2009).	55	35
	Percentage	61%	39%
4	Community-Centered Archives Partners	43	37
	Percentage	54%	46%
5	Communities, Archives, and New Collaborative (Popple & Prescott, Eds. 2020).	37	35
	Percentage	51%	49%
6	Library Collaborations and Community Partnerships (Hines-Martin et al., (Eds.). (2020).	43	36
	Percentage	54%	46%
7	Minds Alive: Libraries and Archives (Demers & Samek (Eds.). (2019).	41	34
	Percentage	55%	45%
8	Critical Literacy, Schooling, and Social Justice (Luke, 2018).	43	33
	Percentage	57%	43%
9	Developing Community-Led Public Libraries (Pateman & Williment, 2016).	41	32
	Percentage	56%	44%
10	Museum and Archive on the Move (Coones & Rühse, 2017).	41	33
	Percentage	55%	45%
11	Academics, Artists, and Museums (Costache & Kunny, (Eds.). 2018).	41	31
	Percentage	57%	43%

Q. 12. Participation and Empowerment, Train the Trainer

In training the trainer, one has a democratic option to find from the LAM professionals as to what is their priority in selecting a topic. Hence, six topics were listed. The response has been even between LAM professionals.

Table 13. Participation and Empowerment, Train the Trainer

	Libraries	Archives	Museums	CBO
Equity and Inclusion (as against inequality and exclusion)	25	16	28	4
Percentage	34%	22%	38%	5%
Non-Violent Communication	9	28	11	5
Percentage	17%	53%	21%	9%
Mindful Engagement (reduce stress, burnout)	26	21	16	8
Percentage	37%	30%	23%	11%
Intercultural dialogue Facilitation (Outreach)	20	34	40	4
Percentage	20%	35%	41%	4%
Theoretical Framework (e.g., Policies, Rights)	13	28	28	8
Percentage	17%	36%	36%	10%
Education and Instruction Tools (e.g., Digital, virtual)	35	29	18	9
Percentage	38%	32%	20%	10%
Civic engagement literacy	14	20	45	9
Percentage	16%	23%	51%	10%

Q. 13. What is a Smart City in the eyes of the beholder of the respondents?

55% Agree with the statement (LAM is), Not listed in the Smart Network; 58% Agree and believe LAM is 'Not in dialog with any in the Smart City plans.' Whereas, 43% Agree, to say, I know there are offers that contribute in smart city development.' As against this stream 41% strongly disagree with the statement, ''Not involved in the Smart Network.''

Figure 2. What is a Smart City in the eyes of the beholder?

13. Thinking of Smart Cities, to the best of your knowledge, what is the status of your city's library or archive or museum? Pick the top three preferences.
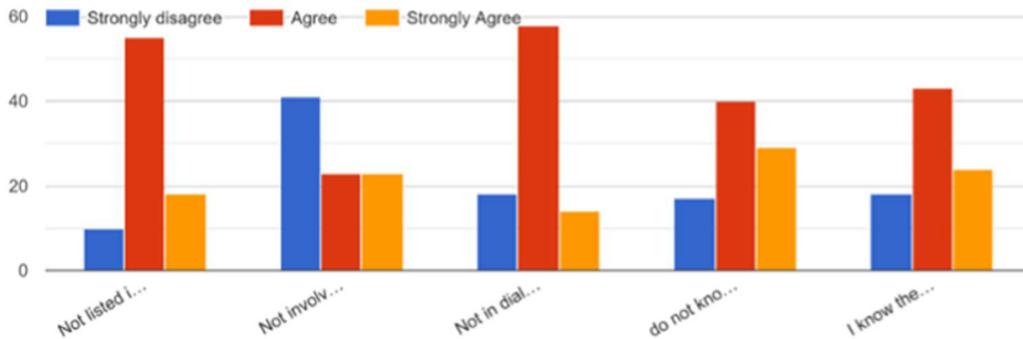
Legend (Figure 2): Not listed in the Smart network; Not involved in the Smart Network; Not in dialog with any in the Smart City plans; do not know of collaborates with other group/s (for developing smart city); I know there are offers that contribute in smart city development.

Q. 14. Smart City as a Concept

(Top ranking answer): 53.6% with mostly information professionals who believe the concept relates to upgrading city's public transportation. 49% believe Hub of information communication technologies and that Smart City improves environmental sustainability.

Figure 3. Smart City as a Concept

14. Thinking of 'smart city,' what is your opinion about this concept? Pick Top Three Choices.
97 responses
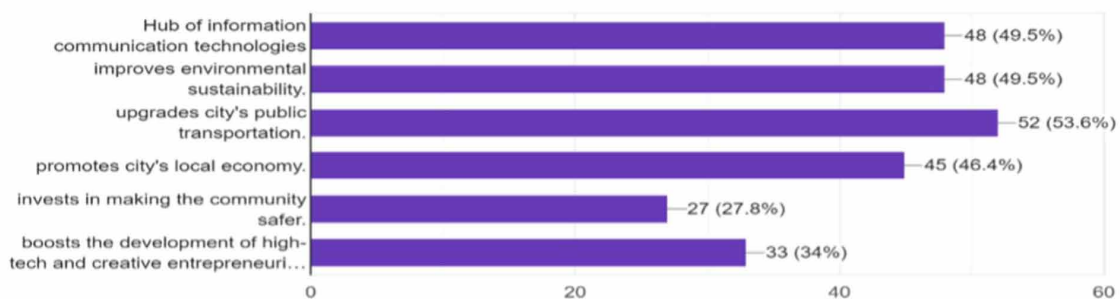
Legend (Figure 3): Hub of information communication technologies; improves environmental sustainability; upgrades city's public transportation; promotes city's local economy.; invests in making the community safer; boosts the development of high-tech and creative entrepreneurial industry.

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Q.15. Programs to reduce the digital divide

Figure 4. Programs to reduce the digital divide

15. What things are critical in evaluating programs for post-COVID-19 era, to reduce digital divide. Pick Top Three preferences.
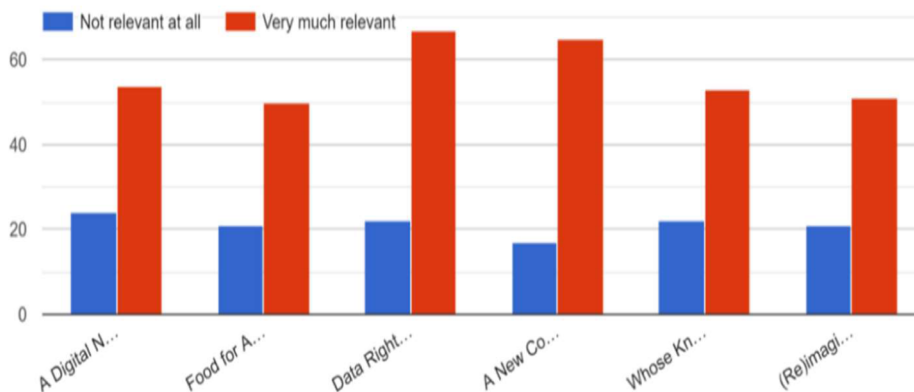
Legend (Figure 4): A Digital New Deal Against Corporate Hijack of the Post-Covid 19 Future; Food for All or Feeding the Data Colossus? The Future of Food in a Digital World; Data Rights and Collective Needs: A New Framework for Social Protection in a Digitized World; A New Convention for Data and Cyberspace; Whose Knowledge Is Online? Practices of Epistemic Justice for a Digital New Deal; (Re)imagining a Social Contract for Labor in the Digital World (itforchange.net).

Q. 16. Resources for diversity and inclusion

66% ranked one, and believe that both of the following are very helpful resources, viz., Peace Literacy Institute: peaceliteracy.org; Libraries For Peace -librariesforpeace.org. Overall, approximately 55% believe that the remaining resources listed are also very helpful. Less than 24% overall is the opinion that all these resources are not very helpful.

Figure 5. Resources for diversity and inclusion

16. Thinking of diversity and inclusion for a stronger tomorrow, how would you rate the following resources? Select all that applies.
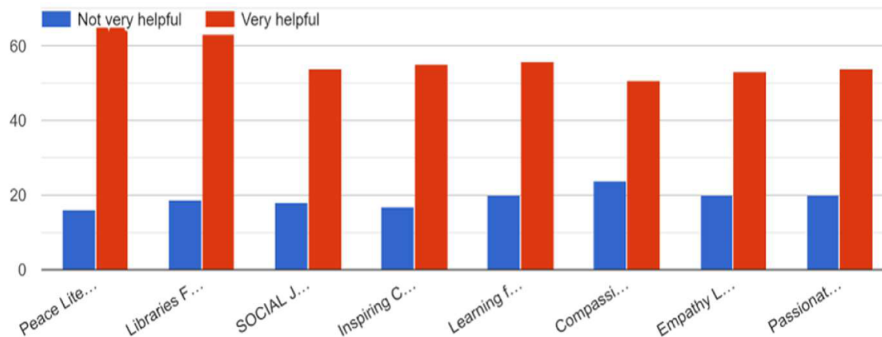
Legend (Figure 5): Peace Literacy Institute: peaceliteracy.org; Libraries For Peace -librariesforpeace.org; Social Justice Resources For Covid-19 - irresistible.org; Inspiring Civic Engagement Examples - civicplus.com; Learning for Justice / Teaching Tolerance! -learningforjustice.org; Compassion in Libraries - compassionatelibrarian.net; Empathy Library -- empathylibrary.com; Passionate Librarian: thepassionatelibrarian.blogspot.com

Q. 17. LAM Job Market in Post-COVID-19

17. Thinking of a potential job market in the post-COVID-19 era, where would you look for openings (i.e., organizational website or job boards)?

Figure 6. Job Market in Post-COVID-19

17. Thinking of potential job market in the post-COVID-19 era, where would you look for openings (i.e., organizational website or job boards)? Select all that applies
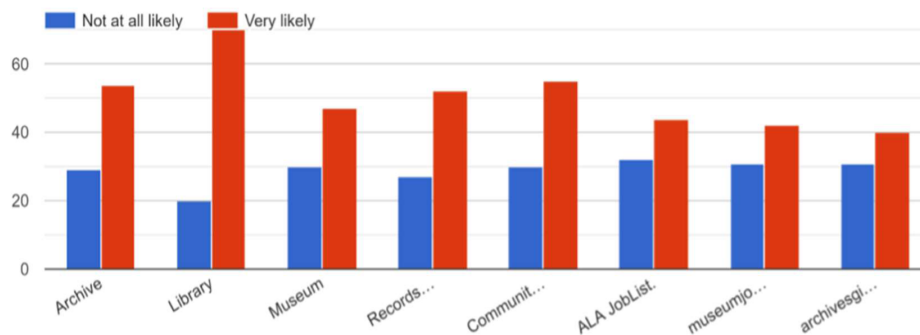
Legend (Figure 6): Archive; Library; Museum; Records management; Community-based organization; ALA Job List; museumjobs.Com; archivesgig.com.

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Respective respondents, i.e., 70% from Library, 54% from Archives, and 47% from Museum believe they are very likely to visit an organizational website or job boards. Less than 40% choose the other options.

Q.18. COVID-19 and LAM Activism

18. Many strategic approaches -- in preparing to enter the post-COVID-19 world -- are making news headlines. Are you familiar with these? (check all that applies).

Top ranking (Table 14): How Archivists Documented a Year of COVID-19 - Bloomberg.com 36%; and Redesigning Libraries, Archives & Museums Post-COVID-19 -- medium.com. At 5th rank are Preparing to reopen – American Alliance of Museums; The impact of COVID-19 on the museum sector - icom.museum; Digital Heritage | Digital meets Culture - digitalmeetsculture.net; and How are others planning for re-opening? museumnext.com

Table 14. COVID-19 and LAM Activism

Media Monitoring	Response	Rank
How Archivists Documented a Year of COVID-19 - Bloomberg.com	36%	1
Redesigning Libraries, Archives & Museums Post-COVID-19 -- medium.com	36%	1
Coronavirus	National Archives --archives.gov	33.70%	2
Turning the threat of COVID-19 into an opportunity for greater support to documentary heritage. ica.org	33.70%	2
Behind-the-Scenes COVID-19 Work: New Academic Archivist ...connect.archivists.org	30.30%	3
New Partnership Lets The Blind Experience Pictures Through Touch .njstatelib.org)	30.30%	3
Public Libraries Respond to COVID-19 - ala.org	30.30%	3
Spurlock hosts first iSchool class in new Collaboration and Community Gallery (ILLINOIS.Edu)	30.30%	3
Museums And The COVID-19 Crisis: 8 Steps To Supporting Community Resilience - - Icom.Museum	29.20%	4
Pandemic Resources for Academic Libraries: Self-Care and New Ways of Working ACRL.org	29.20%	4
Preparing to reopen – American Alliance of Museums	27%	5
The impact of COVID-19 on the museum sector - icom.museum	27%	5
Digital Heritage	Digital meets Culture - digitalmeetsculture.net	27%	5
How are others planning for re-opening? museumnext.com	27%	5

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Q. 19. Civic literacy movement

Q 19. Spirit of Collaboration in Civic Intercultural Literacy: LAM's and CBOs hypothetically agree to collaborate -- for example on challenges, such as Bullying and harassment at school; Head covering across cultures (e.g., men, women); Diet specs across communities (e.g., Kosher, Halal, Garlic-free); etc. -- How would you rate this civic literacy movement?

The responses by and large (Table 15) to most of the suggested modes of collaboration are mixed. No generalization is possible with this small sample. Civic literacy movement needs a fresh outlook and planning, given the digital divide and the pressures of following the pandemic protocols. Moreover,

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LAM has to intensify its publicity of collaborative efforts (as per the discussion with data in previous questions such as Table 4, Figure 1, etc.).

Table 15. Civic literacy movement (scale: N= Not at all likely; V = Very likely)

Activism by Collaboration	N	V
Library/CBO: Zoom-based panel on Kosher & Halal with Tolerance.org	62	33
Archive/CBO: Anger Management's digital poster session with a Chaplain's talk via Google Meet	55	37
CBO/Univ.: focus group to identify inter-cultural challenges with the author of 'Show Me Your Way' (Addison, 2000)	59	34
Library/CBO: Walk the Walk, Talk the Talk. on headscarf with Empathy Lab,	58	37
Museum/Library: virtual workshop on headdress practices, east-west, with reflections from Nonviolent communication, by Rosenberg (2003)	61	33
Archives/CBO: Virtual display of records & talk on non-garlic/ lacto-vegetarian diet (Taher, Multifaith Information Manual, 2017)	54	37
Museum/School: Kids-teachers debate on bullying while being engaged, and an in-house author CK. Chapple (Nonviolence to Animals, 1993)	58	38
CBO/Library: Skype-based interfaith meet (across zones) for a book talk (How to Be a Perfect Stranger, 2003)	63	33

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Q. 20. LAM's Convergence and professional graduate programs

20. Thinking of the future, first about LAM's Convergence and second about LAM professional graduate programs for training & education (TE) what is your opinion?

In Table 16 for example 81% Agree with the statement that "The convergence of Libraries, Archives and Museums has yet to be formalized in graduate education." Again, 68% Agree on the statement, i.e., OCLC's collaboration continuum for LAM needs a TE component &/or attention. By implication, does LAM need to collaborate with educational sphere, and vice versa. This implication, however has a mixed response, based on 51% disagreeing on the statement, viz., Mostly TE & any of the LAM have no collaboration in professional development programs

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Q. 21. Racist and Religious hate content

21. Racist and Religious hate content in the digital age: how do you think Websites/social media content must be dealt with by LAM/CBO -- bearing in mind that the COVID-19 has placed additional pressure on marginalized groups (check all that applies).

Figure 7 presents options to brainstorm on how to deconstruct racism – with one solution at a time. The top-ranking response is LAMs advocacy for social media owners to remove those who circulate such hate content. The second top ranking are two solutions, viz., first is LAMs advocacy to approach lawmakers to hold such content accountable and second is A joint statement against bias, exclusion, and hate must be made by CBOs; social media site owners must report to the authorities. The least strategy (ranking lowest) is Resources for advancing racial equity must be disseminated via all possible channels.

Table 16. LAMs Convergence and professional graduate programs (Strongly disagree = D; Strongly Agree = A)

First about LAM's Convergence and second about LAM's professional graduate programs for training & education (TE)	D	A
"The convergence of Libraries, Archives and Museums has yet to be formalized in graduate education." (Coleman, L. E, 2014)	15	65
Percentage	19	81
Mostly TE & any of the LAM have no collaboration in professional development programs	35	34
Percentage	51	49
Mostly TE & any of the LAM have no collaboration in designing programs	32	34
Percentage	48	51
Mostly TE & any of the LAM have no collaboration in designing services	22	45
Percentage	32	57
Most academic research outcomes are deeply closeted, hence no tangible ROI [See also: "It must be remembered that research results are never applied in action except on the basis of some value system." (Lewin, 1945) (Engström et al.,2012, September; Kougiannou, 2021)	28	43
Percentage	39	60
OCLC's collaboration continuum for LAM needs a TE component &/or attention	21	45
Percentage	32	68
LAMs convergence approach will strengthen LAM's identity (Trant, 2009)	20	44
Percentage	31	69
LAMs convergence is just a rebranding exercise, nothing more. (VanderBerg, 2012).	23	45
Percentage	34	66
LAMs convergence makes sense for the one-click digitally engaged users [see also: "libraries' and archives' collections are just one click away" (Council of Europe, 2020)]	29	42
Percentage	41	59
LAMs convergence lacks transformational change in organizations [See also: issues and make recommendations, but would not necessarily be able to affect the organizational change that might bring the solutions. (Hastings, 2014. P. 37)].	26	44
Percentage	37	63
No convergence in LAM, it is just coordination &/or cooperation [See also: "We are just claiming that merging of institutions and the use of IT sometimes seems to serve other goals than providing optimal solutions for users." (Rasmussen & Hjorland, 2021, section 4.4)]	27	39
Percentage	41	59
Convergence of LAMs physical institutions is not likely to even in the future [see also: "LAM convergence is not likely to result in complete unification, but the growing importance of digital curation activities in supporting the missions of all three types of institutions poses exciting new opportunities for collaboration in professional education." (Tibbo et al., 2010, January)]	31	36
Percentage	46	54
LAMs "integration has primarily occurred around digitization" (Willey, 2017)	23	43
Percentage	35	65
LAMs "professional identity serves as a barrier to integration" (Willey, 2017)	29	47
Percentage	38	62
Most CBO's provide literacy (or adult education), without any of the LAM's collaboration [See also: "The public library is a little explored informal educational organization where adult literacy services continue to be provided for free and to everyone." (Kong, 2011).]	26	44
Percentage	37	63
Most CBO's don't recognize any of the LAM as potential partners [see also: "Some tutors and staff do not agree with our new vision and philosophy and have actively resisted the participatory model," (DeCandido, 2001); '' "However, in general, institutions don't recognize libraries as partners in the management of information of this type." (Revez, 2018)]	27	41
Percentage	40	60
"professionals were in favor of the idea of LAMs as promoters of civic engagement" (Ragnar Audunson, 2020)	15	51
Percentage	23	77

Figure 7. Racist and Religious hate content

21. Racist and Religious hate content in the digital age: how do you think Web-sites/social media content must be dealt by LAM/CBO -- bearing in mi...e on marginalized groups (check all that applies)
94 responses

Legend (Figure 7): LAMs should request social media to remove such posts; LAMs advocacy to approach lawmakers to hold such content accountable; LAMs advocacy for social media owners to remove those who circulate such hate content; A joint statement against bias, exclusion, and hate must be made by CBOs; social media site owners must report to the authorities; Resources for advancing racial equity must be updated with current concerns; Resources for advancing racial equity must be disseminated via all possible channels.

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Q. 22. Digital inclusion: CE and SJ

As with the case of a library's involvement with social justice, there is concern that civic engagement activities could create tensions and negatively affect the perception of the library as a politically neutral institution. (Rubin, 2017).

22. Thinking of a relevant strategy or approach that is not just promoting digital inclusion, but guarantees digitally inclusive communities (be it local or global) in the New Normal.

The top most ranked from the responses is towards integrated approach. 33% feel CE AND SJ is best if combined in the case of, for example, The program focused on everyday needs of the common citizen (e.g., Zoom / Skype training)). Why would the respondents feel so? The answer to this question needs more data to generalize in anyways.

Table 17. Digital inclusion: CE and SJ

	Civic Engagement (CE)	Social Justice (SJ)	CE & SJ	Local	Global
The program focused on everyday needs of the common citizen (e.g., Zoom / Skype training))	18	19	34	18	15
Percentage	17	19	33	17	14
The outcome, in relation to organization's main interest (e.g., harness technology for education)	6	28	20	21	14
Percentage	6	29	21	22	15
Engaging with community partners (e.g., for resume help; safety with hand-held devices))	10	12	24	31	22
Percentage	10	12	24	31	22
Readiness: virtual delivery resources (e.g., digital Reference)	8	15	26	26	21
Percentage	8	15	26	26	21
Civic, social and gender inclusiveness (e.g. digital tour)	8	21	18	26	22
Percentage	8	22	19	27	23
The outcome, of the service that is measurable (e.g., Technology-Related - download speed)	8	13	24	19	15
Percentage	10	16	30	24	19
Accessibility for the marginalized (e.g., Safe online practices (e.g., privacy, Internet safety	6	20	22	27	18
Percentage	6	21	24	29	19
Increasing human touch (e.g., set up e-mail, use a keyboard)	5	17	24	23	14
Percentage	5	18	26	25	15
Real-time support, 24 X 7 (e.g., Life Skills Art Class ideas)	9	14	21	26	13
Percentage	11	16	25	31	16

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SUM UP

Survey I. Impact of COVID-19 On the Lam Sector

The goal of the first Survey was about finding the opinions on the n-going COVID-19 tragedy. The response on the digital divide in Question 2 (Table 4) shows the highest priority for libraries is in media literacy to reduce the divide. Archives would rate hate literacy as most important and, museum professionals feel Environmental Justice literacy as high privity.

We collaborate, but do we know how popular we are among ourselves? (Table 4). 'The audience, that is largely comprised of information professionals said, viz., Top-ranked: 35% of respondents, most from the LAM sector are familiar about, "Children's Hunger Alliance, the COVID response with Public Libraries, OHIO;" whereas, only 17.7% were familiar with "OCLC, IMLS, and Battelle COVID-19 Research Partnership"

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Question ten is on the level of familiarity with activities reported in media headlines during CO-VID-19 (Table 5). That is, 30% of respondents, most from the LAM sector are familiar with (placed in the Table as Rank 1) "Share your COVID-19 Remote Learning Stories!" or (Rank 2): Teaching Museum Studies During a Global Pandemic (NYFA), whereas 24.6% (rank 5) are two of these, viz., COVID-19 Resources for Libraries and Museums (IMLS) and (Rank 5) Pandemic Preparedness | Tools, Publications & Resources (ALA); (and at rank 8) that is only 20.3% were familiar with "COVID-19 Resources & Information for the Museum Field." American Alliance of Museums).

Survey II. Post COVID-19, A Global Survey of Digital Preparedness

On Digital Readiness, in Table 8, most of the respondents feel their organization is planning – Libraries rank topmost. Whereas already implemented, the highest is the Archives. In COVID-19 social distancing, remote access, etc., increased the need for digitalization and virtual access. Among LAM, those who feel Not Ready, Museum scores the highest

On being asked, what things are critical in evaluating programs for the post-COVID-19 era, to reduce the digital divide. The top picked response was, 'Data Rights and Collective Needs' is a program they feel should be a top priority of all the respondents.

Regarding their thinking of the future, first about LAMs Convergence and second about LAMs professional graduate programs for training & education (TE), the response: "The convergence of Libraries, Archives, and Museums has yet to be formalized in graduate education." (Coleman, L. E, 2014) – 81% agree with this statement.

CONCLUSION

This exploratory survey opens up areas for further study and research. Although the respondents are across sectors, and across countries, it needs a national or international body to undertake a detailed investigation. The findings of the present surveys are only pointing at the possible ends, but the sample is too small for any generalizations.

A total change in the turbulent pandemic era and the need to develop resilience strategies with case studies of best practices, calls for similar surveys by regional and local bodies to get the true colours, across disciplines.

Two main areas derived from these two global surveys are, first a need to assess social justice and civic engagement across LAM and the stakeholders -- in both dimensions how the change has occurred due to COVID-19 and how is the continuum in a new norm. Second, is a need to find the pulse – again in both dimensions, as mentioned above -- of the information professionals and stakeholders on matters of mutual interest.

Moving forward the LAM thought leaders, stakeholders, educators, and funders need more specific input in themes/areas using IDEA lenses, such as how bias-free is recruitment, what strategies are for retention of minorities, marginalized or the disadvantaged, Funding channels, and the influence if any in funding, strategies for a holistic approach to equity, whole-person approach in developing services and products, inclusiveness in every step, Visibility and transparency, in-reach and outreach, Activism, etc.

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Survey I. Questions: Bridging the Digital Divide During COVID-19

1. Your province or state of current residence
2. Your country of present residence
3. Please provide the name of your organization and a link to your organization's website.
4. COVID-19s global pandemic shows the severity of the digital divide. Hence, to reduce the digital divide, which of the following topics do you believe are most essential today.
5. There is a gap in understanding the background of the library-community partnership. If yes, will the following questions help to start a research study?
6. Civic Interfaith Reference Inquiry: A Civic Interfaith Engagement Group asks a librarian where to find information to manage COVID-19's isolation, stress, cultural and spiritual fitness. The librarian requests his team for ideas. The team's responses are listed below. How relevant do you think are these to the current need?
7. Most of the Library, Archive, and Museum's university programs do not include digital literacy (esp., for subjects such as Social Justice or Civic Engagement). Who do you think must offer this digital literacy training?
8. Future history-makers: Libraries, Archives, Museums, and CBO have collaborative initiatives to advance community engagement. Are you familiar with the following initiatives?
9. "Four Constructs Of Civic Engagement: 1. Civic Action 2. Civic Commitment 3. Civic Skills democracy. 4. Social Cohesion, " (youth.gov). Does it fit your local needs?
10. Media Monitoring COVID-19: A few developments in the strategies for inclusion/engagement. Are you familiar with the following?
11. "A checklist for digital inclusion - if we do these things, we're doing digital inclusion"(gov.uk). Does it fit your local needs?
12. Questions? Comments? Concerns? (optional) Thank you for your timely help.

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Survey II. Questions: Post-COVID-19 Survey

1. Your province or state of current residence
2. Your country of present residence
3. Please provide the name of your organization, and a website link of the organization.
4. What is the type of organization you are affiliated with?
5. What is your area of Specialization
6. Thinking of barriers to digital inclusion, and ways to reduce the barriers for example, by using a contactless technology (as in tap to pay or mobile phone signal detector), please chose three major challenges.
7. How much do you think is digital readiness (for example, using a contactless technology that removes or reduces physical contact) for Post COVID-19 era
8. What tools do you think are best for the coming age -- with social distancing, no handshakes, no hugging, or not touching at all?

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9. A news is about ''The name of the Museum is a little confusing." Horniman Museum's" Name of the museum is confused with porn." Thinking about the variety of museums and a parallel world of terminology, how would you rate the user-friendliness of the following popular names?

10. Taking a clue from Archives and Museum's cultural engagement practice, for example, "The Culture of Curating and the Curating of Culture(s)." What is your overall understanding of the term intercultural literacy for civic engagement?

11. Please rate how familiar are you with these books on Collaboration.

12.. Thinking of Train the Literacy Trainers, in the post-COVID era which of these topics will be most relevant?

13. Thinking of Smart Cities, to the best of your knowledge, what is the status of your city's library or archive, or museum?

14. Thinking of 'smart city,' what is your opinion about this concept?

15. What things are critical in evaluating programs for the post-COVID-19 era, to reduce the digital divide.

16. Thinking of diversity and inclusion for a stronger tomorrow, how would you rate the following resources?

17. Thinking of a potential job market in the post-COVID-19 era, where would you look for openings (i.e., organizational website or job boards)?

18. Many strategic approaches -- in preparing to enter the post-COVID-19 world -- are making news headlines. Are you familiar with these?

19. Spirit of Collaboration in Civic Intercultural Literacy: LAMs and CBOs hypothetically agree to collaborate -- for example on challenges, such as Bullying and harassment at school; Head covering across cultures (e.g., men, women); Diet specs across communities (e.g., Kosher, Halal, Garlic-free); etc. -- How would you rate this civic literacy movement?

20. Thinking of the future, first about LAMs Convergence and second about LAMs professional graduate programs for training & education (TE) what is your opinion?

21. Racist and Religious hate content in the digital age: how do you think Websites/social media content must be dealt with by LAM/CBO -- bearing in mind that the COVID-19 has placed additional pressure on marginalized groups.

22. Thinking of a relevant strategy or approach that is not just promoting digital inclusion, but guarantees digitally inclusive communities (be it local or global) in the New Normal,

23. Thinking of the digital readiness of people in using technology how would you rate the following, from not ready at all to most ready?

24. Questions? Comments? Concerns? Thank you for your timely help

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Appendix 2: Resource Directory

GETTING MORE FROM SUBJECT GUIDES: LAM'S DIGITAL SCHOLARSHIP

Common Keywords

LIS Education, Archival Studies, Museum Studies, Education; Library, Museum, Archiive, LAM, ALM, Social justice, Ciivic engagement, Literacy, Outreach, Activism, IDEA, EDI, Archivist, Community-based organization, Community Program, Curator, Digital Asset, Electronic Records, Informationist, Infostructure, Infrastructure,, Librarian, Museology, Visitor Experience, Visitor Services, Virtual access; Digital Content; Digitization. cultural heritage, memory institutions.

Note: These resources are related to discussions in Chapters 2, 3, 15, 19, etc.

For researchers, students and practitioners alike, here are best practices, lessons learned and case studies. Although this Appendix is comprehensive, it is not exhaustive. To bring a balance in the approach, this t is not solely focused on technology, or just practices.

This Appendix, as the case with all other contents in this book, is not intended to start a program or a guide to set up any program. Instead, it is a pathfinder to move ahead in turbulent times, such as COVID-19 and post-pandemic planning.

The value of this Handbook is enhanced with this Appendix 2 – it is a thematic list of resources essential for planners, managers, and developers. This resource directory as a pathfinder is very much essential for developing SJ/CE tools for information literacy.

Librarians teaching information literacy (IL) skills require a toolbox of methods to reflect critically on their instructional practices and continue to be dynamic and effective teachers, as well as to support professional growth and renewal. (Badia, 2017, p. 295). [Badia, G. (2017). Combining critical reflection and action research to improve pedagogy. portal: Libraries and the Academy, 17(4), 695-720.]

This Directory offers some significant resources for further study under the following themes

Community based organizations
    Collaboration
    Collaboration Archives-Records
    Collaboration Museum-University
    Collaboration Public Library-Community

COVID-19 Special: COVID-19 Community-based organizations' resources Library and Social Justice Museums and Social Justice Archives and Social Justice Online Resources

Diversity, social justice, and civic engagement in LAM: A Thematic Bibliography
    Best Practices: Festival Literacy. Hindu, Muslim Jewish, etc.
    Evaluating Reference Sources (print, digital) (Analyzed in Chapter 2)
    Impact and feedback Resources
    Challenges, Barrier (eg., Advocacy, outreach, etc.)

Jobs and qualifications, a sample to know the variety of opportunities and details (SJ & CE related)

Education & Continuing Education Resources
    Awards, Scholarships, Grants
    Professional Associations/Groups
    Tools & Guides
    Databases
    Literacies (Analyzed in Chapter 2)
        Fake Media Literacy: Fact Checking Resources
        Race, Racism, Anti-Racism Literacy
        Data Literacy
        Digital Literacy

LAM identities (global directory)
New Literacies for Infodemic vs. Panicdemic vs. Pandemic or COVID-19. (Analyzed in Chapter 2) **Templates for hand-on** (example for a train the trainer program)**:** Template for hands-on, Sample ONE: One search OPAC Public Libraries (Web-Scale Resource Delivery) Template for hands-on, Sample TWO: National Resource Discovery, LAM's OPAC Beyond the Walls Template for hands-On, Sample THREE: Resource Discovery at work, LAM Behind the Walls.

SJ / CE Identities (global directory)
    SJ Pathfinders (Analyzed in Chapter 2)
CE Pathfinders
SJ & CE Journal's Profile (Analyzed in Chapter 2)
    CE Pathfinders (Analyzed in Chapter 2)

SJ & CE Journal's Profile (Analyzed in Chapter 2)
SJ & CE Subject Guides Cross-institutional & Cross-continental Comparison Analyzed in Chapter 2
Transformative Books and other publications (2016-2021) Books on LAM's Collaboration Civic Engagement: LAM's Tools & Guides Civic Engagement: Museum: Civic Engagement: Library Civic Engagement: Archives: Paths to Find More Smart Communities, Smart LAM: cases studies, reviews

When we design and engage in digital literacy instruction, we also attend to how racism, poverty, gender and sexuality discrimination, ableism, ageism, colonialism and other forms of oppression intersect. (Pelan & Smythe, 2019)

As a result, civic engagement promotes an understanding of the connection between individual self- interest and the common good (Hylton, 2018).

First, we must recognize that all libraries, archives, and museums share a common institutional ancestry. The earliest libraries known to history were in actuality archives. (Martin, 2007)

…the smart library concept does not constitute a unique model or project, but a process, a way of how to get things done, that is less linear, less structured, and more creative and innovative. Also, smartness may not be a solution for all library problems. (Schöpfel, 2018, p. 43).

Towards inclusive Smart City of tomorrow… "Due to their local council links, they are the primary organisation providing advice and training on issues of immigration to public service providers such as libraries, schools and museums. Critics recommending a total overhaul of their entire way of working miss an opportunity to shape this influential movement within its own terms. Therefore, I identify the need to assess the sanctuary movement using a frame work which recognises that resistance can come in subtle hues and can also be implicated in the systems of power they seek to challenge. A counter-conduct approach is appropriate for this task" (Wilcock, 2019. P. 144).

LINKOGRAPHY (GLOBAL DIRECTORY)

Community Based Organizations (Includes LAM-Led Community Programs & Community-Led LAM Programs)

- A community-based literacy program partnering with a local library. In this partnership is a promotion of the library services; its website's "Use your library" is linked to the local library network. https://tleliteracy.com
- A community organization partnering with library: https://mediasmarts.ca/
- Bhebhe, S. (2021). Proposed independent organisational structure for memory institutions in Zimbabwe and South Africa. Collection and Curation.
- Bishoff, L. (2021). Collaboration among libraries, archives and museums in the United States, 1999–2019. In Economic Considerations for Libraries, Archives and Museums (pp. 10-26). Routledge.
- Community-Led Libraries Toolkit - Vancouver Public Library. https://www.vpl.ca/
- Conducting a Community Audit Assessing the Workforce Development Needs and Resources of Your Community. [Washington, D.C.?]: Employment and Training Administration, Office of Adult Services, [2000]
- Working with museums and libraries | NCCPE https://www.publicengagement.ac.uk/do-engagement/partnership-working/working-with-museums-and-libraries

- Establishing a New Museum or Gallery: TOOL KIT new-museum-toolkit.pdf (museumsgalleriesscotland.org.uk)
- Stuart, L. A. (2021). The role of libraries, archives and museums in the cultural economy. Economic Considerations for Libraries, Archives and Museums, 197.
- Survey: Social justice divides Americans - The Conversation https://theconversation.com
- 15 Ways to Advance Social Justice in your Community https://educationonline.ku.edu/
- Appendix 3: Ranking Social Justice in the 124 Sample countries https://www.fes.de
- Social Justice Metrics for Libraries - Library Assessment ... https://www.libraryassessment.org
- Creating an Anti-Bias Library - Social Justice Books https://socialjusticebooks.org/
- Beall: 'social justice warrior' librarians 'betraying' academy ... https://www.timeshighereducation.com/
- Critical Museology Miscellanea | blog for critical, self-reflexive https://miscellaneousmuseology.wordpress.com/
- Best colleges with Museology/Museum Studies degrees ... https://www.universities.com
- museum workers & social justice | Solving Task Saturation for https://solvetasksaturation.wordpress.com...
- Translating Social Responsibility into Archival Education ... https://www.simmons.edu
- Beyond evidence: the use of archives in ... https://www.tandfonline.com/
- Archival Science Journal Impact IF 2020-2021 | Analysis ... https://academic-accelerator.com/
- *The* Journal *of Community Informatics,* https://ischoolwikis.sjsu.edu/

Books and Resources on LAM's Collaboration

- Ersoy, A. (Ed.). (2017). The impact of co-production: From community engagement to social justice. Policy Press. (https://research.tudelft.nl/en/publications/the-impact-of-co-production-from-community-engagement-to-social-j)
- Hall, T. D. (2021). Ask, Listen, Empower: Grounding Your Library Work in Community Engagement. American Library Association. (https://americanlibrariesmagazine.org/2021/06/01/ask-listen-empower-community-engagement/),
- Hines-Martin, V., Cox, F. M., & Cunningham, H. R. (Eds.). (2020). Library collaborations and community partnerships: enhancing health and quality of life. Routledge.
- Hughes, K., & Santoro, J. (Eds.). (2021). Pivoting During the Pandemic: Ideas for Serving Your Community Anytime, Anywhere. American Library Association.
- (https://www.alastore.ala.org/content/247-library-ideas-serving-your-community-anytime-anywhere);
- Turnbull, B., Tarin, P. A., & Reader's Digest Foundation. (2001). Tall Tree: Sharing the vision: how schools and libraries can work together to serve children better. Pleasantville, N.Y: Reader's Digest Foundation.
- More books on the same shelf (i.e., similar) are in the Appendix One, (See Table 12)

Collaboration, Public Library-Community

- Learning Exchange [A community based literacy program partnering with a local library. In this partnership is a promotion of the library services; its website's "Use your library" is linked to the local library network]. https://tleliteracy.com
- A community organization partnering with library: https://mediasmarts.ca/
- Community-Led Libraries Toolkit - Vancouver Public Library. https://www.vpl.ca/
- Conducting a Community Audit Assessing the Workforce Development Needs and Resources of Your Community. [Washington, D.C.?]: Employment and Training Administration, Office of Adult Services, [2000]
- Lenstra, N. (2020). Physical activity and libraries: How library-recreation partnerships contribute to active living. In Library Collaborations and Community Partnerships (pp. 186-196). Routledge. https://www.taylorfrancis.com/chapters/edit/10.4324/9780429439261-26/physical-activity-libraries-noah-lenstra
- Power, E., Partridge, H., Owen, S., Kelly, K., & Jeffries, S. (2019). 'Working together': public libraries supporting rural, regional, and remote low-socioeconomic student success in partnership with universities. Journal of the Australian Library and Information Association, 68(2), 105-125. https://eprints.usq.edu.au/37496/1/Working-together-Public-libraries-supporting-rural-regional-and-remote-low-socioeconomic-student%20success-in-partnership-with-universities.pdf
- Li, Y., Lippincott, S. K., Hare, S., Wittenberg, J., Preate, S. M., Page, A., & Guiod, S. E. (2018). The Library-Press Partnership: An Overview and Two Case Studies. library trends, 67(2), 319-334. https://muse.jhu.edu/article/715065/summary
- Mahdi, R. (2020). Strengthening Community Economy Inclusively through Literacy for Prosperity. *The Journal of Indonesia Sustainable Development Planning*, *1*(2), 160-176. http://journal.pusbindiklatren.bappenas.go.id/lib/jisdep/article/view/62
- Ludemann, S. G. D. (2017). The Perception of Effective Community Engagement: A Case Study in a New Zealand Public Library. https://researcharchive.vuw.ac.nz/xmlui/bitstream/handle/10063/6776/paper_access.pdf?sequence=1
- Working with museums and libraries | NCCPE https://www.publicengagement.ac.uk/do-engagement/partnership-working/working-with-museums-and-libraries
- Establishing a New Museum or Gallery: TOOL KIT new-museum-toolkit.pdf (museumsgalleriesscotland.org.uk)

Collaboration, Academic Library-Community

- Polezhaeva, T., Shepel, M., & Vasiliev, A. (2018, November). University library for the city: the experience of communities engagement. In The papers of the Third University Cities Forum/Ed. by Anastasiya Pogorelskaya.–Tomsk: Tomsk State University Press, 2018.–126 p. ISBN 978-5-94621-788-0 (p. 83).
- Costello, B. (2020). Academic Libraries in Partnership With the Government Publishing Office: A Changing Paradigm. In Open Government: Concepts, Methodologies, Tools, and Applications (pp. 1411-1434). IGI Global.

- Hart, A. H. (2018). Academic Librarian and Practitioner Collaborative Research Model: A Diagrammatic Metaphor. In Challenging the "Jacks of All Trades but Masters of None" Librarian Syndrome. Emerald Publishing Limited.

Collaboration, Academic Library-University

- Martzoukou, K., & Fulton, C. Digital Competence for Digital Citizenship: an Emerging Agenda for Students, Academics and Libraries in Partnership. In The Sixth European Conference on Information Literacy (ECIL) (p. 63). https://helda.helsinki.fi/bitstream/handle/10138/300381/ecil2018bookofabstracts.pdf?sequence=1#page=92

Collaboration, Library-School

- Caspe, M., & Lopez, M. E. (2018). Reimagining library-school partnerships to promote family engagement. Childhood Education, 94(4), 30-38. https://www.tandfonline.com/doi/abs/10.1080/00094056.2018.1494434
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- Avery, H. (2017). A Library and School Network in Sweden: Social Literacies and Popular Education. In Teacher and librarian partnerships in literacy education in the 21st century (pp. 45-61). Brill Sense. https://ndl.ethernet.edu.et/bitstream/123456789/16776/1/7.pdf#page=54

Collaboration, Museum-School

- Blackford, J. (2009). School-museum partnership: Bridging formal and informal science learning in the elementary school A Master's Thesis. https://omsi.edu/sites/all/FTP/files/evaluation/Blackford2009.pdf

Collaboration, Museum-Community

- Gross, E. (2018). Teens in Queens: Engaging Teens Living in Queens, New York through Museum Partnerships. https://educate.bankstreet.edu/independent-studies/214/
- Córdova, R., & Murawski, M. (2010). Cultural landscapes for literacies learning: An innovative art museum and teacher research community partnership. *The Missouri Reader*, *4*(2).

Collaboration, Museum-University

- Larrivee, L. S., Gallagher Worthley, J., & Meyer, S. E. (2021). Innovative Expansion of a University and Art Museum Partnership. *Journal of Community Engagement and Scholarship*, *13*(2), 13.
- Lemelin, N., & Bencze, L. (2004). Reflection-on-action at a science and technology museum: Findings from a university-museum partnership. Canadian Journal of Math, Science & Technology Education, 4(4), 467-481.

Collaboration, Archives-University

- Jane, S. C., & Maughan, H. (2020). Making: Archives–a case study of creative collaboration. *Archives and Records*, *41*(2), 148-169. https://www.tandfonline.com/doi/abs/10.1080/23257962.2020.1713071
- Barrett, S. A. (2021). Participatory Description and Metadata Quality in Rapid Response Archives. Collections, 1550190620981038. [an assessment of metadata quality applied by student curators between March and September 2020, during COVID-19]. https://journals.sagepub.com/doi/full/10.1177/1550190620981038
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Collaboration, Archives-Community

- Reeves, G., Wehring, H., Edwards, S., & dos Reis, S. (2017). Partnership with consumers to improve research dissemination. *Medical Research Archives*, *5*(4).
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- Matty, Simon. "Making the case: demonstrating the value of archives to our political masters." Presentation to the National Council on Archives Conference. Birmingham. United Kingdom. 21 February 2006.
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Collaboration, Archives-Schools

- Pitcher, Heather. "Archives in the Classroom: Reaching Out to Younger Canadians Through Archival Documents." Master's thesis, University of Manitoba, 2005.
- Miller, J. R. "Archivists, Historians and Residential Schools." Keynote Address presented at the 34th Association of Canadian Archivists Conference – Rights Responsibilities, Trust: Archives and Public Affairs, Calgary, Alberta, 15 May 2009.
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Collaboration, Archives-Records

- Anderson, K. (2007). Global archive and record-keeping research agendas: encouraging participation and getting over the hurdles. Journal of the Society of Archivists, 28(1), 35–46.
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COVID SPECIAL

- Anheier, H. K., Merkel, J., & Winkler, K. (2021). Culture, the Arts and the COVID-19 Pandemic: Five Cultural Capitals in Search of Solutions.
- Austin, E. W., Borah, P., & Domgaard, S. (2021). COVID-19 disinformation and political engagement among communities of color: The role of media literacy. The Harvard Kennedy School Misinformation Review. https://dash.harvard.edu/
- Bailes, T. (2021). Ballet & Books: finding community and purpose through dance and literacy engagement during COVID-19. Undergraduate Journal of Service Learning & Community-Based Research, 11, 1-5. https://ujslcbr.org/
- Bennion, E., & Scourfield McLauchlan, J. (2020). Promoting civic literacy and engagement during the COVID-19 Pandemic. Political Science Now, March, 23, 2020.
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- Kletchka, D. C., & Casto, S. (2021). Socially Responsive Museum Pedagogy: Education at the Wexner Center for the Arts. In Engaging Communities Through Civic Engagement in Art Museum Education (pp. 170-185). IGI Global.
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- Zbuchea, A., Romanelli, M., & Bira, M. (2021). Through the public's Lens: Are museums active members of society? An investigation during the COVID-19 pandemic. Cultural Initiatives for Sustainable Development: Management, Participation and Entrepreneurship in the Cultural and Creative Sector, 61.

COVID-19 COMMUNITY-BASED ORGANIZATIONS' RESOURCES

- La Bella, E., Allen, C., & Lirussi, F. (2021). Communication vs Evidence: What Hinders the Outreach of Science During an Infodemic? A Narrative Review. Integrative Medicine *Research*, 100731.
- Matthews, G., Gunderson, G., Ledford, S. L., Burris, S., Corcoran, E., Hunter, D., ... & Martin, B. (2020, October). Becoming better messengers in the time of covid-19: Advocacy for health equity and social justice. In APHA's 2020 VIRTUAL Annual Meeting and Expo (Oct. 24-28). American Public Health Association.
- Borello, L., & Borah, S. (2021). Social Justice Advocacy Amidst Institutional Precarity: A Case Study of Diversity, Equity, and Inclusion Efforts during COVID-19. ecommons.udayton.edu
- Staub, J., & Kearney, J. (2021). Equity, Advocacy, Justice, and COVID-19—Programming for the Wind Ensemble of Our Time. scholarworks.uttyler.edu

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COVID-19's RESOURCES

Library and Social Justice

- Connery, D., O'Connor, M., Pierre-Louis, E., Kuscma, J., Butnariu, M., & Serbanuta, C. (2020). Idea Lab:: Outreach in the Time of a Pandemic. Journal of Library Outreach and Engagement, 1(1), 130-134.
- Hall, T. D. (2021). Information Redlining: The Urgency to Close the Digital Access and Literacy Divide and the Role of Libraries as Lead Interveners. Journal of Library Administration, 61(4), 484-492. Taylor & Francis
- Ewen, L. (2020). Libraries and pandemic preparedness: Addressing COVID-19 with facts and outreach. American Libraries.
- Castek, J., & Novak, A. (2020). Hospital Library Puts a Digital Spin on Outreach During Pandemic. Journal of Hospital Librarianship, 20(4), 368-375. - Taylor & Francis
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- Raju, J. (2020). Diversity, Inclusion, and Social Justice in the Information Context. *The International Journal of Information, Diversity, & Inclusion (IJIDI)*, *4*(3/4).

Museums and Social Justice

- Brinda Kumar (2020). A Day in the Life -- a curator of modern and contemporary art https://news. artnet.com/art-world/day-in-the-life-brinda-kumar-1889937
- Cobley, J., Gaimster, D., So, S., Gorbey, K., Arnold, K., Poulot, D., ... & Jiang, M. (2020). Museums in the Pandemic: A Survey of Responses on the Current Crisis. Museum Worlds, 8(1), 111-134.
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Archives and Social Justice

- Dadaczynski, K., Okan, O., Messer, M., Leung, A., Rosário, R., Darlington, E., & Rathmann, K. (2021). Digital health literacy and online information seeking in times of COVID-19. A cross-sectional survey among university students in Germany (Preprint). Journal of medical Internet research, 23(1). hal.archives-ouvertes.fr
- Tan, M. K. B., & Tan, C. M. (2021). Curating wellness during a pandemic in Singapore: COVID-19, museums, and digital imagination. *Public Health*, *192*, 68-71. Elsevier

ONLINE RESOURCES:

- The impact of COVID-19 on the museum sector - icom.museum
- Preparing to reopen – American Alliance of Museums
- How are others planning for re-opening? museumnext.com
- Digital Heritage | Digital meets Culture - digitalmeetsculture.net
- Public Libraries Respond to COVID-19 - ala.org
- Behind-the-Scenes COVID-19 Work: New Academic Archivist ...connect.archivists.org
- Turning the threat of COVID-19 into an opportunity for greater support to documentary heritage. ica.org
- Coronavirus | National Archives --archives.gov
- How Archivists Documented a Year of Covid-19 - Bloomberg.com
- Redesigning Libraries, Archives & Museums Post-COVID-19 -- medium com
- MUSEUMS AND THE COVID-19 CRISIS: 8 STEPS TO SUPPORTING COMMUNITY RESILIENCE - - icom.museum
- Pandemic Resources for Academic Libraries: Self-Care and New Ways of Working ACRL.org
- Spurlock hosts first iSchool class in new Collaboration and Community Gallery (ILLINOIS .edu)
- NEW PARTNERSHIP LETS THE BLIND EXPERIENCE PICTURES THROUGH TOUCH .njstatelib .org)

Diversity, social justice, and civic engagement in LAM: A Thematic Bibliography

- Alemanne, N. D., Drouillard, C., & Ren, X. (2019). Infusing diversity, cultural competence, and social justice into a LIS curriculum. Social justice.
- Capadisli, S. (2020). Linked research on the decentralised Web.
- Carlton, P. (2016). From ashes to ashé: Memorializing traumatic events through participatory digital archives. Electronic Theses and Dissertations, 2004-2019. 5110. https://stars.library.ucf.edu/etd/5110
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- Delgado, M. (2015). Community practice and urban youth: Social justice service-learning and civic engagement. Routledge.
- Diversity Working Group. (2019). Dismantling White Supremacy in GLAMs and GLAM Education [Galleries, Libraries, Archives, Museums]. The iJournal: Graduate Student Journal of the Faculty of Information, 4(3), 11-20.
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- Mitchell, T. D., & Soria, K. M. (2017). Educating for citizenship and social justice. London, UK: Palgrave Macmillan.
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- Ndumu, A., & Walker, S. (2021). Adapting an HBCU-inspired framework for Black student success in US LIS education. Education for Information, (Preprint), 1-11.
- Ng, W., Ware, S. M., & Greenberg, A. (2017). Activating diversity and inclusion: A blueprint for museum educators as allies and change makers. Journal of Museum Education, 42(2), 142-154.
- Pio, E., & Syed, J. (2020). Stelae from ancient India: Pondering anew through historical empathy for diversity. Management Learning, 51(1), 109-129.
- Ramos, A. F. (2020). An Exploration of Canadian LIS Programs. Emerging Library & Information Perspectives, 3(1), 39-66.
- Roberts, S. T., & Noble, S. U. (2016). Empowered to name, inspired to act: Social responsibility and diversity as calls to action in the LIS context. Library Trends, 64(3), 512-532.
- Tamashiro, R., & Furnari, E. (2015). Museums for peace: agents and instruments of peace education. Journal of Peace Education, 12(3), 223-235.
- Villagran, M. A., & Hawamdeh, S. (2020). Cultural competence in LIS education: case study of United States ranked schools. Multicultural Education Review, 12(2), 136-155.

Intercultural/Interfaith: Best Practices: Festival Literacy.
Hindu, Muslim Jewish (see quiz in chapter 2)

Library

- Celebrate **Diwali** Nov 14th | Waterloo Public Library
- Diwali celebrations at Wellington City Libraries – Library
- **Ramadan** Around the World - Burlington Public Library
- The Origins and Practices of Eid ... - Boston Public Library
- The Little book of Jewish celebrations - Dallas Public Library
- Celebrations: our **Jewish** holidays | Grand County Library

Museum

- Tom Dieck, M. C., Jung, T. H., & Rauschnabel, P. A. (2018). Determining visitor engagement through augmented reality at science festivals: An experience economy perspective. Computers in Human Behavior, 82, 44-53.
- BRIDGMAN, R., & JAFFER, A. (2017). FAITH IN BIRMINGHAM: A NEW VOICE FOR PEOPLE OF FAITH IN THE CITY. Journal of Museum Ethnography, (30), 104-121.
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- Harris, E. (2017). interfaith connections in the museum: domestic practice, display and dialogue. Material Religion, 13(2), 258-260.

Intercultural/Interfaith: What Works and Works Well

- Interfaith dialogue at peace museums in Kenya
- interfaith connections in the museum: domestic practice, display and dialogue
- Tourism and peace in the Mediterranean Area: The Museums of Lanzarote and Lampedusa
- "Welcome to Interfaith Dialogue", the Employee of the Art Gallery Said and Started the Tour– Frames and Spaces of Interfaith Interaction
- The Library as a Campus Spiritual Space: Evidence from Student Focus Groups
- Where the private meets the public: Results of a survey of library professionals' observed student use of academic library spaces for prayer
- Zen and the Art of Dealing with the Difficult Patron

Best Practices:

- Arvanitakis, J. (2019). Intercultural Mirrors and Cultural Humility: My Journey as an Educator. In *Intercultural Mirrors* (pp. 281-301). Brill Sense.
- Montiel-Overall, P., Nuñez, A. V., & Reyes-Escudero, V. (2015). *Latinos in libraries, museums, and archives: Cultural Competence in action! An asset-based approach*. Rowman & Littlefield.
- Clarke, L. W. (2020). Walk a Day in My Shoes: Cultivating Cross-Cultural Understanding Through Digital Literacy. *The Reading Teacher*, *73*(5), 662-665. https://ila.onlinelibrary.wiley.com/doi/abs/10.1002/trtr.1890

Intercultural/Interfaith: Websites and Readings

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Jobs and qualifcations, a sample to know the variety of opportunitirs and details (SJ & CE reelated)

Job sites;

ALA Job List; museumjobs.Com; archivesgig.com. Westword Classifieds; LinkedIn; Jobing.com; USA-JOBS; https://ischool.utoronto.ca/job-site.

Qualifications and Requirements:

Marketing and Community Engagement Coordinator

Completion of an accredited Library and Information Technician, Marketing or Business Administration Diploma and three (3) years experience in a library setting or customer service oriented setting, or an equivalent combination of education and relevant experience that is deemed necessary to successfully fulfill the requirements of this position to the satisfaction of the Library, Museums & Archives CEO 0https://ischool.utoronto.ca/job/25742-2021/-

The Senior Manager of Patron Engagement is an achievement-oriented development professional with a proven ability to solicit and close gifts from individuals. She/He/They must be a team player committed to developing and working within a collaborative environment. The ideal candidate will have a

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minimum of three to five years of experience in not-for-profit fundraising or sales at a contemporary art gallery; excellent communication skills in written and oral presentation, as well as strong strategic and operational management skills. She/He/They will have experience with travel programs, event planning and programming. The Senior Manager of Patron Engagement will have the ability to perform under tight deadlines in a fast-paced environment; the ability to multi-task, establish priorities and react when those priorities shift. She/He/They must be able to attend evening events as required." (Pap et al., 2020).

The Museum is searching for an experienced, entrepreneurial, and energetic professional who will help the institution to build visitation and extend the Museum's visibility within the wider community. This person will need to set and meet goals in order to increase revenue and enhance the Museum's financial position. The successful candidate will have extensive experience and commercial success in sourcing, mounting, interpreting, and marketing exhibitions; significant experience working within curatorial services, creative learning, and public engagement; and will be educated to degree level and preferably with an advanced degree in museum studies or another appropriate field. (https://aim-museums.co.uk/job-vacancy-collections-public-engagement-director-american-museum-gardens/)

Learning and Community Engagement Assistant:

Qualifications: Degree or experience in heritage management, history, archaeology or relevant subject. (https://www.petersfieldmuseum.co.uk/sites/default/files/Learning%20and%20Community%20Engagement%20Assistant%20Job%20Description_0.pdf)

Lecturer in Inclusive Learning: The person & qualifications Level 3 or 5 Teaching qualification is desirable. Minimum level qualification to teach subject, Level 3 or 4, HND or degree. Level 2/GCSE in English and Maths at grade C or above. Experience Makaton, BSL and alternative communication methods is desirable (https://www.jobs24.co.uk/jobs/88913780-lecturer-in-inclusive-learning-at-cv-library)

Creative Coproduction Curator: our time with us can include tasks such as co-hosting creative workshops, preparing and taking an active part in ideation sessions and strategic planning meetings, preparing, and hanging an exhibition, putting together workshops in an envelope to travel out to people, travelling into the city to share objects from the collection, writing interpretation, documenting and handling the historic collection. (https://www.nationaljusticemuseum.org.uk/museum/jobs/job-description-creative-coproduction-curator)

Required Education & Experience @ Director, Diversity, Equity, Inclusion & Access

Graduate Degree in social justice, communications, public administration, human resource management, or other related fields. 7+ years of experience advancing diversity, equity, inclusion, and access in a complex organization; and including at least one year of management or supervisory experience. Experience performing the duties described above may substitute for the education requirement on a year-for-year basis. (https://www.glassdoor.com/job-listing/director-diversity-equity-inclusion-access-the-new-york-public-library-JV_IC1132348_KO0,42_KE43,70.htm?jl=4160279968)

Equity Release Advisor: Successful candidates will have a minimum of 2 years' experience as an Equity Release Advisor, with a proven track record of meeting and exceeding sales targets. (https://www.jobs24.co.uk/jobs/88921224-equity-release-advisor-at-cv-library)

Challenges, Barrier (eg., Advocay, oureach, etc.)

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Education & Continuing Education Resources

Formal Education

General

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Museum

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Informal Education

- Media Literacy and the Common Good: A Link to Catholic ... http://digitalcommons.lmu.edu/
- Teaching Tolerance | Diversity, Equity And Justice https://www.tolerance.org/
- A Collection of Resources for Teaching Social Justice | https://www.cultofpedagogy.com/
- Lessons | Teaching Tolerance https://www.tolerance.org/
- Countering online hate speech - UNESCO Digital Library https://unesdoc.unesco.org
- Diamond, J., Horn, M., & Uttal, D. H. (2016). Practical evaluation guide: Tools for museums and other informal educational settings. Rowman & Littlefield.
- Free Training for Library Staff - November 2020 - Library ... https://librarylearn.org/
- Beyond Madness: Ways to Foster Nonviolence http://socialalternatives.com/
- Rethinking Literacy and Responsibility: A Diffractive ... https://eric.ed.gov
- Professional Development Programs. American Alliance of Museums

Awards, Scholarships, Grants

- Awards and Competitions. American Alliance of Museums
- Roald Dahl's Miss Honey Social Justice Award | American ... http://www.ala.org/aasl/awards/social-justice
- Fostering archival scholarship: introduction to the special ... https://link.springer.com
- Sherpa Juliet https://v2.sherpa.ac.uk/ a searchable database and single focal point of up-to-date information concerning research funders' policies and their requirements on open access, publication and data archiving.
- Archival Activism – eScholarship https://escholarship.org/

Professional Associations/Groups

- Centre for the Public Library and Information in Society (CPLIS) https://www.sheffield.ac.uk/is/research/centres/cplis
- Social Justice Alliance for Museums: https://sjam.org
- Social Justice - Small Museum Association. www.smallmuseum.org
- International Organization for Peace Building and Social Justice-- (PSJ) https://psj.org.ng
- Archives and Archival Studies Associations https://lib.guides.umd.edu/c.php?g=327055&p=2194839
- International Organization of Social Justice. https://iosj.org.ua

Tools & Guides

- A Quick Guide to (a few) Social Justice Concepts (Loyola Marymount University)
- Social Justice Repair Kit https://sojustrepairit.org/
- Anti-Racism Vocabulary: A Preliminary Framework F (Atla.Com)Or The Faceted Thesaurus
- 'Access for all' toolkit: enabling inclusion for museums, libraries and archives https://collection-strust.org.uk/resource/access-for-all-toolkit/
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- Inclusive, Culturally Relevant, and Culturally Competent Teaching. https://libguides.library.arizona.edu/cct
- The Ultimate Guide to Virtual Museum Resources, E-Learning, and Online Collections https://mcn.edu/a-guide-to-virtual-museum-resources/
- Types of archival repositories https://dal.ca.libguides.com/c.php?g=257178&p=4978663
- The international directory of national archives
- EBSCOhost Ebooks
- International Directory of Libraries https://librarytechnology.org/libraries/
- Directory of Museums https://joyofmuseums.com/museums/
- Museums, libraries and art galleries https://www.macmillandictionary.com/thesaurus-category/british/museums-libraries-and-art-galleries
- Vocabulary (data value standards) https://www.canada.ca/en/heritage-information-network/services/collections-documentation-standards/chin-guide-museum-standards/vocabulary-data-value.html
- Glossary of Terms https://www.usgs.gov/products/scientific-collections/glossary-terms
- Introduction to Controlled Vocabularies Featuring the Getty Vocabularies https://www.getty.edu/research/tools/vocabularies/intro_to_vocabs.pdf
- Object Materials Thesaurus http://www.heritage-standards.org.uk/fish-vocabularies/
- Resource Description Thesaurus http://www.heritage-standards.org.uk/fish-vocabularies/
- Other Terminology Resources http://www.heritage-standards.org.uk/other-terminology-resources/
- *National* Gender and Equity Campaign. (n.d.) A Guide on Community Engagement: Making Social Justice Work Inclusive. ~ https://www.racialequitytools.org/

Fake Media Literacy: Fact Checking Resources

- Misinformation Lexicon. https://library.louisville.edu
- Diversity Style Guide [to help journalists and other media professionals cover a complex, multicultural world with accuracy, authority and sensitivity] https://www.diversitystyleguide.com/
- FactCheck (Annenberg Public Policy Center, for checking on political claims.)
- Snopes (urban legends, news stories - cite their sources at the end of each debunking.)
- PolitiFact (The Pulitzer Prize-winning -- claims of politicians and checks their accuracy.
- SourceWatch (profiles the activities of front groups, PR spinners, industry-friendly experts, industry-funded organizations, and think tanks trying to manipulate public opinion on behalf of corporations or government)
- TinEye (Check images to see if they have been altered or misidentified as fake news)
- Hoax-Slayer (Snopes but tighter in scope, Hoax-Slayer on email hoaxes, identity theft scams and spam.)
- Web Literacy for Student Fact Checkers This short, open source book by author Mike Caulfield provides alternative, web-native approaches to news literacy and fact-checking.

Good Reads and Resources

- Ramasubramanian, S., & Darzabi, R. (2020). Civic engagement, social justice, and media literacy. Routledge.
- Racial Equity Tools https://www.racialequitytools.org/home
- Meal Time Conversation Starters Around Race and Social Justice. https://eatsparkcity.org/social-justice-conversations/
- Anti-Hate Organizations | Reading Hate in Canada: Hate ... https://sites.ontariotechu.ca/hate-crime/anti-hate-organizations/index.php
- WhatisaHateCrime?|LearningforJusticehttps://www.learningforjustice.org/classroom-resources/lessons/what-is-a-hate-crime
- Media and Information Literacy against racial discrimination: Young Experts from Canada and Morocco (unesco.org)
- MAPPING OF MEDIA LITERACY PRACTICES AND ... – Coe https://rm.coe.int/1680783500
- Dimensions of Racism – OHCHR https://www.ohchr.org/

Teaching, Writing Tools

- Engage students with primary sources: Getting Started with Primary Sources:
- Chicago Citation Format https://www.loc.gov/programs/teachers/getting-started-with-primary-sources
- Archival Documents and Collections: How to Cite APA: https://apastyle.apa.org/style-grammar-guidelines/references/archival
- Posts related to museums – How to Cite MLA: https://style.mla.org/tag/museums/
- How to Cite Museum Materials https://www.ushmm.org/collections/ask-a-research-question/how-to-cite-museum-materials

- Chicago-Style Citation Quick Guide https://www.chicagomanualofstyle.org/tools_citationguide. html
- Types of archival repositories. https://www2.archivists.org
- Wood, S. L., & Bright Jr, D. E. (1992). List of Museum Type Repositories. *Great Basin Naturalist Memoirs*, *13*(1), 2. https://scholarsarchive.byu.edu/cgi/viewcontent. cgi?article=1196&context=gbnm
- Example Digital Libraries/Repositories. https://www.csc.lsu.edu/~wuyj/Teaching/7410/sp16/hw/ ExampleDLs.html

Race, Racism, Anti-Racism Literacy

Case studies

- McDonald, B., Lanctot, H., & Fernandez, N. M. (2021). Little Big Stories: Case Studies in Diversifying the Archival Record through Community Oral Histories. Journal of Western Archives, 12(1), 4. https://digitalcommons.usu.edu/westernarchives/vol12/iss1/4/

Best Practices

- Teasdell, A. (2021). *"Re-Membering" History to Counter Miseducation: Explorations of Curriculum Development and Culturally Responsive Pedagogy in Urban Education* (Doctoral dissertation, The University of North Carolina at Charlotte).
- Jones, E. W., Sweeney, S., Milligan, I., Bak, G., & McCutcheon, J. A. (2021). Remembering is a form of honouring: preserving the COVID-19 archival record. ["COVID-19 presents an opportunity to preserve a rich and diverse historical record—one intended to honour all experiences and voices and in recognition of ongoing systemic inequalities shaping the pandemic."] https://www. facetsjournal.com/doi/full/10.1139/facets-2020-0115

Thesaurus (Mapping Terminology)

- Anti-Racism Vocabulary: A Preliminary Framework For The Faceted Thesaurus (Atla.Com)

Goodreads

- McKee, B. (2002). The role of the library in promoting peace. In *Symposium. 40th anniversary of the Dag Hammarskjöld Library: Legacy of a Secretary-General*. https://www.un.org/depts/dhl/ dag/symposium_docs/mckee.pdf
- Classroom Resources | United States Institute of Peace. Uwww.usip.org
- Collective Nonviolent Action Resources » WNY Peace Center http://wnypeace.org/
- Listen carefully, think first, respect everyone — nonviolence for ... https://wagingnonviolence.org/
- Siméant Johanna, Träini Christophe, & Träini Christophe. (2016). Bodies in protest: hunger strikes and angry music (Ser. Protest and social movements, 9). Amsterdam University Press.

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- Oliphant, T. (2021). Emerging (information) realities and epistemic injustice. *Journal of the Association for Information Science and Technology*. . 2021; 1– 12.
- Spirit of the Peace Museums Our Peace Country Museums http://spiritofthepeace.ca
- Peace Palace Library, the international law library https://www.peacepalacelibrary.nl
- - South Peace Regional Archives (southpeacearchives.org)
- Allard, Danielle (2015). Future Perfect? Peacekeeping, Peacebuilding and Archives—the United Nations in Sudan. Journal of the Society of Archivists, 30(1), 3–26
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Equity Literacy, Case Studies

"The concept of multicultural education began in the 1970s and continues to develop today. Its purpose is to increase educational equity for all students. Multicultural education fuses concepts from a variety of fields (i.e., ethnic studies, women's studies, etc.) with key ideas from social and behavioral sciences**."** (Aragona-Young, E. (2017).

    "Ali, the school librarian, said, "I would love to deliver the bags" and proceeded to explain how doing so would be a great segue into talking to families about the resources available in the school library and opening a dialogue about the child's favorite types of books." (Aragona-Young, E. (2017).

- Aragona-Young, E. (2017). Developing equity literacy: A collaborative approach.
- Lazar, A. M., Edwards, P. A., & McMillon, G. T. (2012). Bridging literacy and equity: The essential guide to social equity teaching. Teachers College Press.
- Lazar, A. M., Nicolino, D., & Sanlin, T. (2015). THE POSSIBILITIES OF SOCIAL EQUITY LITERACY TEACHING IN AN ERA OF ACCOUNTABILITY. *Reconceptualizing Literacy in the New Age of Multiculturalism and Pluralism*, 105.
- Swalwell, K. (2011). Why our students need "equity literacy.". *Teaching Tolerance Blog*.
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- Morrell, E. (2017). Toward equity and diversity in literacy research, policy, and practice: A critical, global approach. Journal of Literacy Research, 49(3), 454-463.

Inclusive Literacy, Case Studies

- Nkamnebe, E. C., & Nkamnebe, C. B. (2018). Leaving No One Behind: Promoting Literacy in Nigeria through Inclusive Library and Information Services. *COVENANT JOURNAL OF LIBRARY AND INFORMATION SCIENCE*. https://journals.covenantuniversity.edu.ng/index.php/cjlis/article/viewFile/962/632
- George, I. A. (2020). How can public libraries make 'reading for pleasure' accessible for children who may not achieve conventional literacy? https://hcommons.org/deposits/objects/hc:32542/datastreams/CONTENT/content
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- Chun, C. W. (2017). Academic Literacy and Student Diversity: The Case for Inclusive Practice. https://academic.oup.com/eltj/article-abstract/71/3/386/3094681

Intercultural/Interfaith Literacy (Equity, Diversity and Inclusion)

"However, more than a work-related skill, intercultural communication can be envisioned as a life skill which allows one to function effectively in his or her day-to-day activities.**"** (Chiper, 2013).

"Many mainstream believers fit the description of "Golden Rule religion" - - neither very cold nor very hot religiously, but mostly concerned with providing for their families, helping and caring for others, doing good deeds, being friendly and civic-minded, and living a good life." (Roof, 2001: 195).

"*Religion is not bounded by culture, but religion is essential to the literacy of culture* that media practitioners' treasure" (Fortner, & Fackler 2017).

- Ngian, L. C. (2017). Role of Libraries in Strengthening Tolerant and Inclusive Societies.
- Clarke, L. W. (2020). Walk a Day in My Shoes: Cultivating Cross-Cultural Understanding Through Digital Literacy. The Reading Teacher, 73(5), 662-665. https://ila.onlinelibrary.wiley.com/doi/abs/10.1002/trtr.1890
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- Wexelbaum, R. (2016). The library as safe space. In The future of library space. Emerald Group Publishing Limited. https://repository.stcloudstate.edu/lrs_facpubs/56/
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- Arao, B. & Clemens, K. (2013). From safe spaces to brave spaces: a new way to frame dialogue around diversity and social justice. In L.M. Landreman (Ed.) The art of effective facilitation: Reflections from social justice educators. Sterling, VA: Stylus Publishing, LLC, pp. 135-150.
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- Black, A., & Muddiman, D. (2017). Understanding community librarianship: the public library in post-modern Britain. Routledge;
- Multifaith Information Manual,, ed., Taher, Mohamed, Canadian Multifaith Federation, 2017; and
- Cyber Worship in Multifaith Perspectives, by Taher, Mohamed, Scarecrow, 2006.
- Interfaith dialogue at peace museums in Kenya
- interfaith connections in the museum: domestic practice, display, and dialogue
- Tourism and peace in the Mediterranean Area: The Museums of Lanzarote and Lampedusa
- "Welcome to Interfaith Dialogue", the Employee of the Art Gallery
- The Library as a Campus Spiritual Space: Evidence from Student Focus Groups
- Where the private meets the public: Results of a survey of library professionals' observed student use of academic library spaces for prayer
- Zen and the Art of Dealing with the Difficult Patron
- McCowan, T. (2006). Building Bridges through Interfaith dialogue in schools: Facilitators Handbook . Melbourne. in McCowan, T. R. (2012). The building bridges through interfaith dialogue in schools programme: an investigation into the effectiveness of a model of interfaith education. https://ir.library.dc-uoit.ca/bitstream/10155/1127/1/Robertson_James_G.pdf - https://www.academia.edu/24701342/
- 13. Laic Interfaith Compliance Creativity. https://medium.com/@ecumenictimes/ecumenic-laic-interfaith-creativity-dd7d64e03bea
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- Canadian Multifaith Federation. (2017). Multifaith Information Manual. omc.ca
- Using food as an example in learning in SJ & CE's integrated environment (Delgado, 2015)
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Data Literacy

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Digital Literacy

Digital Literacy models, Best Practices…

- NEAL, A. B., & SCOTT, R. E. (2015). Digital Sampling: Borrowing from Cultural Institutions to Enhance the Performing Arts Library. Performing Arts Resources; New York 1:72-XV. ["Cultural heritage institutions, like performing arts libraries, provide information services to practitioners, scholars, educators, and the general public-and they structure their services accordingly. While both libraries and museums provide information to diverse users, philosophical frameworks for these services vary. Museum models of digital literacy differ from information literacy models and offer concepts worth adapting and appropriating."] https://www.proquest.com/openview/4bb9eece71003a4fba78db1423f39429/1
- Tzoc, E., & Ubbes, V. A. (2017). The Digital Literacy Partnership Website: Promoting interdisciplinary scholarship between faculty, students, and librarians. New Review of Academic Librarianship, 23(2-3), 195-208. https://www.tandfonline.com/doi/abs/10.1080/13614533.2017.1333013
- Fritz, A. (2021). Sustainable Enterprise Strategies for Optimizing Digital Stewardship: A Guide for Libraries, Archives, and Museums. Rowman & Littlefield.
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e-Resources

- Connecting Information Literacy and Social Justice: Why and How https://www.researchgate.net
- Learning the Landscape of Digital Literacy, tolerance.org https://www.tolerance.org
- Literacies, new technologies and young people: Negotiating ... https://oportuguesdobrasil.files.wordpress.com/
- Hobbs, R., Donnelly, K., Friesem, J., & Moen, M. (2013). Learning to engage: How positive attitudes about the news, media literacy, and video production contribute to adolescent civic engagement. *Educational Media International*, *50*(4), 231-246. https://core.ac.uk/f
- Sustainable internet penetration of rural areas: reframed ... [Sustainable internet penetration of rural areas. Reframing the global challenge of the digital divide through fruitful local metaphors] https://www.laetusinpraesens.org/docs00s/internet.php
  Thesaurus (Mapping Terminology)
- Common Sense Digital Glossary FTW. https://www.commonsense.org/

LAM Identities (Global directory)

- Archival-Futurism: Archives as Social Justice https://ivc.lib.rochester.edu/archival-futurism/
- Internet Archive Bookmobile: https://archive.org/texts/bookmobile.php
- Europeana The European digital library, museum and archive http://www.europeana.eu/
- MICHAEL portal (Multilingual Inventory of Cultural Heritage in Europe) http://www.michael-culture.eu/
- SIBMAS,: http://www.sibmas.org//http://www.theatrelibrary.org/sibmas/sibmas.htm
  the International Association of Libraries and Museums of the Performing Arts. An International Directory of Performing Arts Collections and Institutions
- Chinese libraries and museums.: http://www.asianinfo.org/asianinfo/education/libraries/china.htm
- Victoria and Albert Museum Art Library: http://www.vam.ac.uk/page/n/national-art-library/
- Art Libraries Society of North America (ARLIS/NA): http://www.arlisna.org/
- JISC Collections (UK): http://www.jisc-collections.ac.uk/ A membership organisation that supports the provision of digital content for education and research in the UK.
- The Getty Museum Research Library, Los Angeles: http://www.getty.edu/research/conducting_research/library/index.html
- The Group for Literary Archives and Manuscripts (GLAM): http://glam-archives.org.uk/
- Online Archive of California (OAC) http://www.oac.cdlib.org/ Online Archive of California (OAC), in partnership with the California Digital Library (CDL), is a digital resource providing access to materials held in libraries, museums, archives, and other institutions across California.
- Look-Here!: http://www.vads.ac.uk/lookhere/index.html The Look Here! Project is developing a community of expertise in the creation, management, and use of digitilised library, museum, and archive collections for learning, teaching, and research in the creative arts
- Australian National University Institute of the Arts Library: http://anulib.anu.edu.au/
- ArLiSNAP blog Designed for the busy art librarian or librarian to be, the Art Library Students & New ARLIS Professionals

- The Arcaid Architectural Picture Library, Admont, Austria: http://www.arcaidimages.com/
- Art Librarians Society of North America (ARLIS/NA): http://www.arlisna.org/
- BAM (Portal for Libraries, Archives and Museums): http://www.bam-portal.de/ BAM is a common Internet service of libraries, archives and museums in Germany.
- The Digital Public Library of America (DPLA): http://dp.la/
- Smithsonian Institution: http://www.si.edu/ Libraries, archives, museums. African art, folk life, American Art Study Center, Archives of American Art ● [source: https://zeroland.co.nz/visual-arts/arts_library/]
- GLAM - Creative Commons: https://wiki.creativecommons.org/wiki/GLAM
- World arts libraries, art image databases, online archives » Arts and Culture Online:: https://zeroland.co.nz/visual-arts/arts_library/
- The UNESCO Institute for Lifelong Learning, https://uil.unesco.org/
- Partnership: Intergovernmental organizations & Non-governmental organizations
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- Sustainable Development Goals (SDGs), https://sustainabledevelopment.un.org/post2015
- Civic Learning: Leading Organizations, https://www.aacu.org/resources/civic-learning/organizations
- International Association of Sound and Audiovisual Archives (IASA): https://www.iasa-web.org/
- International Institute for Archival Science of Trieste and Maribor (IIAS): https://uia.org/s/or/en/1100001694
- Human Rights and Social Justice Advocacy Groups (NGO's), https://www.guidetoaction.org/intlgrps.html

New Literacies for Infodemic vs. Panicdemic vs. Pandemic or COVID-19

In thinking about ways to address the need for more effective media literacy education, we landed on games as an underused, yet potentially highly effective, instructional approach.

The game that was born out of these conversations, *LAMBOOZLED!*, is a card game developed and tested with educators and students, and recently released by Teachers College Press. Drawing from interdisciplinary research, the game tightly integrates declarative knowledge (e.g. identifying a missing byline, a strange URL, or a sensationalist title) and procedural knowledge (e.g. seeking out an expert opinion or checking alternative sources) as part of its gameplay.

The game can accommodate 2-6 players, and has been successfully implemented across subjects (English, Media Literacy, Social Studies, library-based activities), grade levels (5th ~ 12th grade), and contexts (classroom, library, workshops, informal events etc.). Chang, Y.K. (2020).

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SJ / CE IDENTITIES

- Social Justice and Public Libraries: Equity Starts with Us |Public Library Association: https://www.ala.org/pla/education/inperson/equity
- Civic & Community Engagement | Public Library Association https://www.ala.org/pla/resources/tools/community-engagement-outreach/civic-community-engagement
- Social Justice Educational Research http://www.afle.ca/social-justice-education-research.html
- Social Justice Portal https://sji.uic.edu/portal-project/
- Global Social Justice: https://www.globalsocialjustice.eu/
- Explore Participation, Rights & Inclusion data in the IIAG: https://iiag.online/app.html?v=mIYXJgSs
- Social Justice in an Open World - The Role of the United Nations: https://www.un.org/esa/socdev/documents/ifsd/SocialJustice.pdf
- Research Spotlight: Social Justice: https://mo.ibrahim.foundation/research-spotlight-social-justice
- Research Funding Database, Themes Social Justice: https://research-tools.mun.ca/funding/themes/social-justice/
- CSJ Foundation for Research and Education http://www.socialjustice.org
- Social Justice Legal Foundation: Private Enterprise Support for Public Good. https://www.socialjusticelaw.org/
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- Libraries Working Towards Social Justice [Formed in 2020, Libraries Working Towards Social Justice seeks to expand programming efforts beyond our individual communities to achieve a more equitable, diverse, and inclusive society.]: https://www.chelmsfordlibrary.org/research-it/socialjustice/

SJ Pathfinders

- EPFR: Elements Pathfinder For Research: URL: https://delseamslibrary.weebly.com/elements-pathfinder.html
- SSCP: Support System for Creating Pathfinder Using Reference Examples in "eKNOW 2017: The Ninth International Conference on Information, Process, and Knowledge Management"URL: https://thinkmind.org/articles/eknow_2017_3_20_60038.pdf
- PWP: Parkway West Pathfinder.URL: https://pwestpathfinder.com
- SJTP: Social Justice Tee- Pathfinder URL: https://www.storefrontier.com/product/socialjusticeteepathfinder
- PPSJ: Periyar--Pathfinder of Social justice URL: https://www.facebook.com/events/266970187258093
- PPJIS: Pathfinders for Peaceful Just and Inclusive Societies URL: https://www.sdg16hub.org/landing-page/sdg-16-pathfinders

- EPIE: E-Pathfinder -- Information Literacy & Ethics Toolkit: Information Literacy and Ethics Resources for Middle and High School Students and Teachers http://infoethicsandlit.blogspot. com/2006/03/e-pathfinder-information-literacy.html
- PI: Pathfinder International URL: http://www.pathfinder.org
- AP: Afterschool Pathfinder URL: https://www.afterschoolpathfinder.org

Civic Engagement Pathfinders:

Tools and approaches in evaluating pathfinders

- Nguyen, B. M. D., Nguyen, T. H., Gutierrez, R. A. E., Kurland, W. M., & Lee, N. W. (2021). Institutional pathfinders: Key lessons from program directors of AANAPISI grant-funded projects. *Journal of Diversity in Higher Education*.
- Rex, S., & Gelsthorpe, L. (2002). The role of community service in reducing offending: Evaluating Pathfinder projects in the UK. *The Howard Journal of Criminal Justice*, *41*(4), 311-325.
- Wendtland, M. O., & Clelland, A. (1993). EVALUATING PATHFINDER. *IVHS review*.
- Dunsmore, C. (2002). A qualitative study of web-mounted pathfinders created by academic business libraries.
- Accessibility based on Standard metrics (source: www.webaccessibility.com)

CE Pathfinders (analyzed in Chapter 2)

- PPJIS: Pathfinders for Peaceful Just and Inclusive Societies URL: https://www.sdg16hub.org/landing-page/sdg-16-pathfinders
- CE: CIVIC ENGAGEMENT URL: http://globalpathfindersummit.org/resources/
- SCEP: Student Civic Engagement Pathfinder URL: https://pathfinder.uchicago.edu
- PGDC: PATHFINDER: Tag line: Global Development Consulting URL: https://pathfindersocent.com/
- MP: Management *Pathfinder* (Community cohesion, neighbourhood management and local civic engagement) URL: https://1library.net/document/q5m86owy-community-cohesion-neighbourhood-management-and-local-civic-engagement.html?utm_source=related_list Primary URL (landing page): https://1library.net/
- CECG: CIVIC ENGAGEMENT (Search for Common Ground | Understanding Differences; Acting on Commonalities) URL: https://www.sfcg.org/civic-engagement/
- RICL: Rhetoric In Civic Life (Pathfinder International's publication) URL: http://dhis2tz.pathfinder.org [inactive link]:
- PFTPD: Path Finders Tarot & Personal Development URL: https://path-finders.ca/

SJ & CE Journal's Profile ((analyzed in Chapter 2))

- SJR: Social Justice Research, Homepage: https://www.isjr.org/journal/ [https://ncu.libguides.com/c.php?g=892211&p=6415266]
- ECSJ: Education, Citizenship and Social Justice URL: https://journals.sagepub.com/home/esj

- IJCJ: International Journal for Crime, Justice and Social Democracy Homepage: https://www.crimejusticejournal.com/
- CRIL: Contemporary Readings in Law and Social Justice Homepage: https://www.addletonacademicpublishers.com/contemporary-readings-in-law-and-social-justice
- JPSJ: Journal of Poverty and Social Justice Homepage: https://policy.bristoluniversitypress.co.uk/journals/journal-of-poverty-and-social-justice.
- SSJ: Studies in Social Justice Homepage: https://journals.library.brocku.ca/index.php/SSJ/index
- DCID: Disability, CBR and Inclusive Development (formerly Asia Pacific Disability Rehabilitation Journal) Homepage: https://dcidj.org
- JLOE: Journal of Library Outreach and Engagement Homepage: https://iopn.library.illinois.edu/journals/jloe/index
- EDIIJ: Equality, Diversity and Inclusion: An International Journal https://www.emerald.com/insight/publication/issn/2040-7149
- MSI: Museums & Social Issues https://www.tandfonline.com/toc/ymsi20/current
- RIE: Research Involvement and Engagement Homepage: https://researchinvolvement.biomedcentral.com
- JAS: Journal of Access Services https://www.tandfonline.com/toc/wjas20/current
- ANJ: ACCESS - National Journal https://www.asla.org.au/access
- JSI: Journal of Social Inclusion https://josi.org.au/
- HHR: Health and Human Rights www.hhrjournal.org/
- JCC: The Journal for Civic Commitment https://www.mesacc.edu/community-civic-engagement/resources/community-college-journal-civic-commitment
- SI: Social Inclusion Social Inclusion

SJ & CE Subject Guides Cross-Institutional & Cross-Continental Comparison (Analyzed in Chapter 2)

- https://guides.tricolib.brynmawr.edu/
- https://library.fdu.edu/socialcivicengagement
- https://research.dom.edu/sb.php?subject_id=18857
- https://library.shoreline.edu/socialjustice/civicengagement
- https://libguides.library.qut.edu.au/social_justice
- https://www.lawlibrary.vic.gov.au/legal-databases-subject/social-justice
- https://guides.library.unisa.edu.au/sb.php?subject_id=36457
- https://library.nd.edu.au/social_justice1.

Discipline-Specific Databases (Analyzed in Chapter 2)

- Political Science
- Database
- PAIS Index
- CIAO Columbia International Affairs Online.
- Human Trafficking

- Gender Watch
- Sociological Abstracts
- Sociological Abstracts
- Criminal Justice Database
- ATLA Religion
- Other Databases
- Miscellaneous Databases/Resources:
  - Education for Justice: a project of Ignatian Solidarity Network, provides resources to those who wish to study, teach, and practice Catholic social tradition.
  - Peace Research Abstracts: The index contains over 200,000 records from sources such as The Journal of Peace Research, and The Journal of Conflict Resolution.
  - (ProQuest): Research on crime, its causes and impacts, legal and social implications, as well as litigation and crime trends. As well as U.S. and international scholarly journals, Produced by the American Theological Library Association (since 1908-.)
  - Encyclopedia of Environmental Ethics and Philosophy: concepts, institutions, topics, events and people, including global warming, animal rights, environmental movements, alternative energy, green chemistry, industrial ecology, and eco-sabotage.
  - Consumer Action: financial literacy and consumer protection..
  - RHIN: Refugee Health Information Network: Health Information in Multiple Languages, Refugee Health Information for Providers, and Information about Health Services for Refugees..
  - Social Psychology Network: Devoted to psychological research and teaching.
  - World Food Situation: Food and Agriculture Organization of the United Nations, looks at different issues regarding food levels and availability around the world.:
  - Social Justice Institute [SJI]
    URL: https://socialjustice.fmuniv.edu/
    Description: to serve as a resource for understanding and facilitating tangible reforms in order to achieve a more just and fair society.
  - Stanford Social Innovation Review
    Tagline: Let's End This Pandemic Together
    URL: https://ssir.org/
    is an award-winning magazine and website that covers cross-sector solutions to global problems… Civic Engagement… Social innovations that enrich society and enhance democratic participation ... Bridging Faith and Social Justice Across Generations.
  - Social Planning Toronto (formally known as the Community Social Planning Council of Toronto)
    Focus areas: Civic Engagement & Community Coalitions
    URL: https://www.socialplanningtoronto.org/s
    Description: promotes social justice, equity and engagement.
  - Fwd: Museums Journal
    url: https://fwdmuseumsjournal.weebly.com/Creator/author: Half Letter Press
    Description strives to create a space for challenging, critiquing, and fostering new futures for cultural production within and outside of museums.

- ◦ Center for the Future of Museums
  TrendsWatch
  http://info.trendwatching.com/Creator/author: Center for the Future of Museums
  https://www.aam-us.org/programs/center-for-the-future-of-museums/trendswatch/
- ◦ Active Collections
  URL: https://www.routledge.com/Active-Collections/Wood-Tisdale-Jones/p/book/9781629585239
  Creator /author: Edited By Elizabeth Wood, Rainey Tisdale, Trevor Jones
  Description In recent years, many museums have implemented sweeping changes in how they engage audiences
- ◦ Participatory Museum.
  URL: http://www.participatorymuseum.org/read/Creator/author: Nina Simon'
  Description: *he Participatory Museum* is a practical guide to working with community members and visitors to make cultural institutions more dynamic, relevant, essential places
- ◦ SOCIAL JUSTICE AND CIVIC ENGAGEMENT LIVING-LEARNING COMMUNITY
  URL: https://www.iup.edu/housing/livinglearning/living-learning-communities/social-justice-and-civic-engagement-community/Creator/author: Office of Housing, Residential Living, and Dining, Indiana University of Pennsylvania
  Description: Welcomes students who are interested in civic engagement, social activism, inclusivity, and learning about how to become an active part of the solutions through community engagement.
- ◦ Affiliated faculty: Civic Engagement

Transformative Books and other publications (2016-2021)

Civic Engagement: Museum

- Garrison, K. M. (2020). *Virtual art museums and their application in the K-12 classroom* (Doctoral dissertation). University: University of Texas Austin.
- Hudson, C. J. (2020). *A Series of Zines for the Room Gallery during a Pandemic* (Doctoral dissertation, UC Irvine). University: University of California.
- Tomczuk, E. D. (2018). *From exhibit to action: The impact of museum experiences on visitors' social justice actions* (Doctoral dissertation). University: University of Washington.
- Morrison, S. (2019). *In Pursuit of Connection: Exploring Visitors' Empathy in Culturally-Centered Museums* (Doctoral dissertation). University: University of Washington.
- Brenner, S. E. (2020). *Decolonizing Natural History Museums Through Volunteer Engagement* (Doctoral dissertation). University: University of Washington.
- Clair, M. L. (2016). *The Social Justice and Societal Impact of Public Programs in House Museums* (Doctoral dissertation). University: University of Washington.
- Weiser, M. E. (2017). *Museum rhetoric: Building civic identity in national spaces* (Vol. 5). Penn State Press.
- Brulon Soares, B., & Smeds, K. (2016). Museology exploring the concept of MLA (Museums-Libraries-Archives) and probing its interdisciplinarity. *Icofom Study Series*, (44), 29-33.

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- Loyd, Tara. (2020). Day in the life of a Museum Curator, https://sculptsuccess.com/day-in-the-life-of-a-museum-curator/

Civic Engagement: Library

- Keinath, C. (2020). Come COVID or High Water: How Being an Online MLIS Student Prepared Me for Virtual Professional Participation During COVID-19. University: University of Tennessee Health Sciences Center.
- Sparks, K., & Rogers, H. (2020). Open for Business: Offering Physical Library Spaces in the COVID Era.. University: University of Tennessee Health Sciences Center.
- Kouame, G., & Gallay, J. (2020). Rapid Response: Librarian Integration Into An Expedited Pandemic Medicine Elective. University: University of Tennessee Health Sciences Center. .
- Adams, C. (2020). Blend to Bend: Exploring Blended Learning Concepts in the Age of Pandemic.. University: University of Tennessee Health Sciences Center.
- Coward, C., Maclay, C., & Garrido, M. (2018). *Public libraries as platforms for civic engagement*. [washington.edu]
- Alam, S. L., & McLoughlin, C. (2018). E-citizenship skills online: A case study of faculty use of web 2.0 tools to increase active participation and learning. In *Information and technology literacy: Concepts, methodologies, tools, and applications* (pp. 878-896). IGI Global.
- Lisa Harms (2010), A Day in the Life of an Art Librarian | The Metropolitan ... https://www.metmuseum.org/blogs/now-at-the-met/features/2010/a-day-in-the-life-of-an-art-librarian

Civic Engagement: Archives:

- Smith, A. (2020). *The Absent Archive: Race, Gender, and Sexuality in Aids Comics* (Doctoral dissertation, University of Cincinnati).
- Lester, P. A. (2019). *Reshaping the Archive: Exhibition as a mechanism for change* (Doctoral dissertation, University of Leicester).
- Hoyer, J. (2020). Out of the Archives and into the Streets: Teaching with Primary Sources to Cultivate Civic Engagement. *Journal of Contemporary Archival Studies*, *7*(1), 9.
- Acker, A., & Kriesberg, A. (2017). Tweets may be archived: civic engagement, digital preservation and Obama White House social media data. *Proceedings of the Association for Information Science and Technology*, *54*(1), 1-9.
- A DAY IN THE LIFE OF AN ARCHIVIST. https://archives.consortiumlibrary.org/2016/10/07/a-day-in-the-life-of-an-archivist/

Civic Engagement: LAM's Tools & Guides

- Civic Engagement | Youth.gov
- Teaching with the Museum: partnership as pedagogy | Art History Teaching Resources
- covid-19 teaching Archives - AESSOnline.org
- Teaching Museum / COVID-19 Remote Learning Stories (fultonschools.org)
- Teaching about archival processing during COVID-19 (archivistrising.blogspot.com)

- Teaching Museum Studies During a Global Pandemic – NYFA
- Teaching with the Museum: partnership as pedagogy | Art History Teaching Resources
- Social Justice and Activism for Youth San Jose State University School of Information
- Information Literacy Module: Visual and Quantitative Literacy
- Social Accountability: An Introduction to Civic Engagement for Improved Service Delivery Policy and Practice Discussion Paper
- Creating an Anti-Bias Library
- How to Structure an Evidence-based Report - Evidence-based ... U of T LibrariesS
- Kranich, Nancy. (2016). "Libraries and Community Engagement: Bibliography and exercises." http://njlaconference.info/content/libraries-and-community-engagement-bibliography-and-exercises ~~ http://njlaconference.info/sites/njlaconference.info/files/Libraries%20and%20 Community%20Engagement%20Bibliography%20Current_0.pdf

Paths to Find More

- Research Methods, Marino Institute of Education Library
- Resources/Teaching Materials - Civic Engagement Activities ... Paradise Valley Community College Library (some are recorded and archived)
- Video: Introduction to Civic Engagement - Research Tutorials ...
- Civic Literacy and Engagement Guide, San Jose State University School of Information
- Social Justice and Activism for Youth San Jose State University School of Information
- Information Literacy Module: Visual and Quantitative Literacy
- Social Accountability: An Introduction to Civic Engagement for Improved Service Delivery Policy and Practice Discussion Paper
- Creating an Anti-Bias Library https://socialjusticebooks.org/creating-an-anti-bias-library/

Table 1. Template for hands-On, Sample ONE: One search OPAC Public Libraries (Web-Scale Resource Delivery) (Chickering, & Yang, 2014. Vaughan, 2011)

	Equity flexible. *	Diversity **	Accessible $ []senior friendly — Partial / full / none	Enriched — ALL	Visual &	Hearing	Physical	Mental	Autism	One-stop search (i.e., All in one) or partial — All in one + full text linked	Catalog	database	Local Digitized content	Free resources on the web	Faceted navigation, %	Did u mean	Relevancy-ranked	User feature
1.	Yes	yes	P	yes							yes	no	yes	no	partial	no	no	No
2	no	yes	P		?	?	?	?	?		yes	no	no	no	partial			
3	no	no	none		yes	yes	yes	dk	dk		yes	no	no	no	partial	no	no	yes
4	no	no	none		?	?	?	?	?		yes	no	no	no	partial	yes	no	yes
5.	dk	dk	yes		no	no	no	no			yes	no	?	yes	?	no	no	yes

Legend

* Policy statement;

** Multicultural resources

$ Functional (e.g, each page has a search button, each page has a navigation feature;)

& "contrast": "Toggle High Contrast","grayscale":

% faceted (Johns-Smith, 2012).

1. Kingston Frontenac Public Library, Ontario https://www.kfpl.ca/

2. New York Public Library (CATNYP) https://catnyp.nypl.org/

3. Toronto Public Library, tpl.ca

4. Mexico Public Library, ncls.org

5. London Public Library, http://mylondonlibrary.org/

Table 2. Template for hands-On, Sample TWO: National Resource Discovery, LAM's OPAC Beyond the Walls Worksheet Template (the student or user may be trained to fill all the blanks)

	One-search Catalog	OPAC Accessibility, literal	OPAC Accessibility, anti-literal	OPAC Accessibility, mysterious	Catg Vendor	Equitable	Flexible	Tolerant	Reception
1. National Museums Scotland Library Services	Mus & Lib Catg stand-alone	Blocked*	DK	DK	Sirsi				***Your Internet browser seems to have cookies disabled**
2. Library and Archives Canada									
3. National Library of Czech	SOUBORNÝ KATALOG	Error*	DK	DK	KP-SYS				Error ♣ Not found
4. Colombo NATIONAL MUSEUM LIBRARY	All-in-One search (basic; no advanced)			Yes (search button in the header, combines site, L&M catalogs); No DEI	KOHA				
5. National Museum Library, India	Only site search; No OPAC	DK	DK	DK	DK				
6. Estonian National Museum Library									
7. National Archives Museum | National Archives Museum									
8. National Library Archives Museum Uk									
9. Art Library Consortium, Japan	cross-search								
10. National Corvette Museum Library & Archives									

Scale Legend A: LAM Scales [(Hunt, 1972), adapted] Literal (DEI expression), anti-literal (DEI expression) mysterious (DEI expression)

Scale Legend B: To assess the EDI, here are three Indicators (as a sample): Equitable, i.e., meets different physical, visual, technical needs; Flexible, i.e., meets different behaviors, ifferent devices; Tolerant, i.e., correcting errors, updated content, open for feedback (source: www.creativebloq.com)

1. https://www.nms.ac.uk/ [no access, access blocked – cookies to be cleared to get access, code: https://libcat.nms.ac.uk/uhtbin/cgisirsi. exe/?ps=dt6snJAgz0/NMS/X/38/1/X]; 2. https://www.bac-lac.gc.ca/eng; https://www.nm.cz/en/national-museum-library#news [no access, note: Search site: Error, Not found: https://nmcentral.kpsys.cz/search-form]

4. http://www.museum.gov.lk/web/index.php?lang=en;

5, http://nationallibrary.gov.in/; 6. https://www.nlib.ee/en; 7 https://museum.archives.gov/; 8. https://www.britishmuseum.org/resources/ library-and-archive; 9. The Art Library of The National Art Center, Tokyo, Libraries of The National Museum of Modern Art, Tokyo (Art Library, Art Museum and Library, Crafts Gallery), and Library of National Film Archive of Japan. https://www.nact.jp/english/art-library/ opacsearch.html; http://corvettemuseum.org/learn/lib

Table 3. Template for hands-On, Sample THREE: Resource Discovery at work, LAM Behind the Walls. (Template for a train the trainer program)

	Library	Archive	Museum	Remark
● Capturing o local level, group level, web-level				
o Collecting,				
o curating,				
o preserving				
o disseminating				
● Catalog,				
o Web-presence				
● Visibility,				
o Social media presence				
● Searchability,				
o One-search box				
● Integrated system,				
o in-house				
● Metadata				
o staff generated				
o user generated				
o machine generated				
o transaction-based				
● Method (variable): .				

● LAM Scales [(Hunt, 1972), adapted]
    o Literal (DEI expression),
    o anti-literal (DEII expression)
    o mysterious (DEI expression				

others				
● Discoverability				

Compilation of References

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Adam, E., Fasa, M. I., Pandjaitan, R., Roslan, A. H., & Vikaliana, R. (2020). *Facing The New Normal Literacy: Information Technology Skill And Information Quality Strategy*. http://eprints.eudl.eu/id/eprint/2775/

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