ELECTRONIC RESOURCE LIBRARIANSHIP

A Practical Guide for Librarians

HOLLY TALBOTT
& ASHLEY ZMAU

PRACTICAL GUIDES FOR LIBRARIANS, NO. 52

Electronic Resources Librarianship

PRACTICAL GUIDES FOR LIBRARIANS

About the Series

This innovative series written and edited for librarians by librarians provides authoritative, practical information and guidance on a wide spectrum of library processes and operations.

Books in the series are focused, describing practical solutions to problems facing today's librarian and delivering step-by-step guides for planning, creating, implementing, managing, and evaluating a wide range of services and programs.

The books are aimed at beginning and intermediate librarians that need basic instruction and guidance in specific subjects and also at experienced librarians who need to gain knowledge in a new area or guidance in implementing a new program or service.

About the Series Editors

The **Practical Guides for Librarians** series was conceived and edited by M. Sandra Wood, MLS, MBA, AHIP, FMLA, Librarian Emerita, Penn State University Libraries from 2014 to 2017.

Ms. Wood was a librarian at the George T. Harrell Library, the Milton S. Hershey Medical Center, College of Medicine, Pennsylvania State University, in Hershey, PA, for over thirty-five years, specializing in reference, educational, and database services. Ms. Wood received an MLS from Indiana University and an MBA from the University of Maryland. She is a fellow of the Medical Library Association and served as a member of the MLA's Board of Directors from 1991 to 1995.

Ellyssa Kroski assumed editorial responsibilities for the series beginning in 2017. She is the director of Information Technology at the New York Law Institute and is an award-winning editor and author of thirty-six books, including *Law Librarianship in the Digital Age* for which she won the American Association of Law Libraries 2014 Joseph L. Andrews Legal Literature Award. Her ten-book technology series, *The Tech Set*, won the American Library Association's Best Book in Library Literature Award in 2011. Ms. Kroski is a librarian, an adjunct faculty member at Drexel and San Jose State University, and an international conference speaker. She has recently been named the winner of the 2017 Library Hi Tech Award from the ALA/LITA for her long-term contributions in the area of library and information science technology and its application.

Titles in the Series edited by M. Sandra Wood

1. *How to Teach: A Practical Guide for Librarians* by Beverley E. Crane
2. *Implementing an Inclusive Staffing Model for Today's Reference Services* by Julia K. Nims, Paula Storm, and Robert Stevens

3. *Managing Digital Audiovisual Resources: A Practical Guide for Librarians* by Matthew C. Mariner
4. *Outsourcing Technology: A Practical Guide for Librarians* by Robin Hastings
5. *Making the Library Accessible for All: A Practical Guide for Librarians* by Jane Vincent
6. *Discovering and Using Historical Geographic Resources on the Web: A Practical Guide for Librarians* by Eva H. Dodsworth and L. W. Laliberté
7. *Digitization and Digital Archiving: A Practical Guide for Librarians* by Elizabeth R. Leggett
8. *Makerspaces: A Practical Guide for Librarians* by John J. Burke
9. *Implementing Web-Scale Discovery Services: A Practical Guide for Librarians* by JoLinda Thompson
10. *Using iPhones and iPads: A Practical Guide for Librarians* by Matthew Connolly and Tony Cosgrave
11. *Usability Testing: A Practical Guide for Librarians* by Rebecca Blakiston
12. *Mobile Devices: A Practical Guide for Librarians* by Ben Rawlins
13. *Going Beyond Loaning Books to Loaning Technologies: A Practical Guide for Librarians* by Janelle Sander, Lori S. Mestre, and Eric Kurt
14. *Children's Services Today: A Practical Guide for Librarians* by Jeanette Larson
15. *Genealogy: A Practical Guide for Librarians* by Katherine Pennavaria
16. *Collection Evaluation in Academic Libraries: A Practical Guide for Librarians* by Karen C. Kohn
17. *Creating Online Tutorials: A Practical Guide for Librarians* by Hannah Gascho Rempel and Maribeth Slebodnik
18. *Using Google Earth in Libraries: A Practical Guide for Librarians* by Eva Dodsworth and Andrew Nicholson
19. *Integrating the Web into Everyday Library Services: A Practical Guide for Librarians* by Elizabeth R. Leggett
20. *Infographics: A Practical Guide for Librarians* by Beverley E. Crane
21. *Meeting Community Needs: A Practical Guide for Librarians* by Pamela H. MacKellar
22. *3D Printing: A Practical Guide for Librarians* by Sara Russell Gonzalez and Denise Beaubien Bennett
23. *Patron-Driven Acquisitions in Academic and Special Libraries: A Practical Guide for Librarians* by Steven Carrico, Michelle Leonard, and Erin Gallagher
24. *Collaborative Grant-Seeking: A Practical Guide for Librarians* by Bess G. de Farber
25. *Story-Time Success: A Practical Guide for Librarians* by Katie Fitzgerald
26. *Teaching Google Scholar: A Practical Guide for Librarians* by Paige Alfonzo
27. *Teen Services Today: A Practical Guide for Librarians* by Sara K. Joiner and Geri Swanzy
28. *Data Management: A Practical Guide for Librarians* by Margaret E. Henderson
29. *Online Teaching and Learning: A Practical Guide for Librarians* by Beverley E. Crane
30. *Writing Effectively in Print and on the Web: A Practical Guide for Librarians* by Rebecca Blakiston
31. *Gamification: A Practical Guide for Librarians* by Elizabeth McMunn-Tetangco
32. *Providing Reference Services: A Practical Guide for Librarians* by John Gottfried and Katherine Pennavaria
33. *Video Marketing for Libraries: A Practical Guide for Librarians* by Heather A. Dalal, Robin O'Hanlan, and Karen Yacobucci
34. *Understanding How Students Develop: A Practical Guide for Librarians* by Hanah Gascho Rempel, Laurie M. Bridges, and Kelly McElroy

35. *How to Teach: A Practical Guide for Librarians, Second Edition* by Beverley E. Crane
36. *Managing and Improving Electronic Thesis and Dissertation Programs: A Practical Guide for Librarians* by Matthew C. Mariner
37. *User Privacy: A Practical Guide for Librarians* by Matthew Connolly
38. *Makerspaces: A Practical Guide for Librarians, Second Edition* by John J. Burke, revised by Ellyssa Kroski
39. *Summer Reading Programs for All Ages: A Practical Guide for Librarians* by Katie Fitzgerald
40. *Implementing the Information Literacy Framework: A Practical Guide for Librarians* by Dave Harmeyer and Janice J. Baskin

Titles in the Series edited by Ellyssa Kroski

41. *Finding and Using U.S. Government Information: A Practical Guide for Librarians* by Bethany Latham
42. *Instructional Design Essentials: A Practical Guide for Librarians* by Sean Cordes
43. *Making Library Web Sites Accessible: A Practical Guide for Librarians* by Laura Francabandera
44. *Serving LGBTQ Teens: A Practical Guide for Librarians* by Lisa Houde
45. *Coding Programs for Children and Young Adults in Libraries: A Practical Guide for Librarians* by Wendy Harrop
46. *Teen Fandom and Geek Programming: A Practical Guide for Librarians* by Carrie Rogers-Whitehead
47. *Comic Book Collections and Programming: A Practical Guide for Librarians* by Matthew Wood
48. *STEM Programming for All Ages: A Practical Guide for Librarians* by Chantale Pard

Titles in the Series edited by M. Sandra Wood

49. *Game-Based Teaching and Learning: A Practical Guide for Librarians* by Beverley E. Crane

Titles in the Series edited by Ellyssa Kroski

50. *Gaming Programs for All Ages in the Library: A Practical Guide for Librarians* by Tom Bruno
51. *Intentional Marketing: A Practical Guide for Librarians* by Carol Ottolenghi
52. *Electronic Resources Librarianship: A Practical Guide for Librarians* by Holly Talbott and Ashley Zmau

Electronic Resources Librarianship

A Practical Guide for Librarians

Holly Talbott and Ashley Zmau

PRACTICAL GUIDES FOR LIBRARIANS, NO. 52

ROWMAN & LITTLEFIELD
Lanham • Boulder • New York • London

Published by Rowman & Littlefield
An imprint of The Rowman & Littlefield Publishing Group, Inc.
4501 Forbes Boulevard, Suite 200, Lanham, Maryland 20706
www.rowman.com

Unit A, Whitacre Mews, 26-34 Stannary Street, London SE11 4AB

British Library Cataloguing in Publication Information Available

Library of Congress Cataloging-in-Publication Data Available
ISBN 9781538107300 (pbk : alk. paper) | ISBN 9781538107317 (ebook)

™ The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences—Permanence of Paper for Printed Library Materials, ANSI/NISO Z39.48-1992.

Printed in the United States of America

To my mentors, whose insight and advice are invaluable. To my family, who support me in everything I do. And to Lydia Sampson and Jaimee Hugo, who cheered me on.

—Holly Talbott

To Erika Ripley, Sarah Haight Sanabria, and Porcia Vaughn. You invested so much time and energy into mentoring me—I am eternally grateful. Thank you for realizing my potential as a librarian before I did myself. And to my husband, Daniel, thank you for your love and support.

—Ashley Zmau

Contents

List of Illustrations

Figures

Tables

Preface

The joke she tells is a familiar one: "Managing e-resources is like trying to nail Jell-O to a wall. Right when you think you've got it pegged—*splat*."

Her tone is light, but there is an undercurrent of anxiety. She, like many others, stepped into her role as an electronic resources librarian more by chance than by design. With no formal training and a notebook full of her predecessor's notes, she has come to the conference hoping to fill the gaps in her knowledge with practical advice. Among her many questions are:

- How do I compare dissimilar usage statistics?
- How do I ask for changes in my licenses?
- How do I balance my long-term projects with everyday issues that pop up?
- How do I get anything done when e-resources are constantly evolving?

The truth is that many librarians are struggling with the same questions. Electronic resource management can be intimidating to the uninitiated. The first few months on the job often feel like a barrage of being undecided, apprehensive, and overwhelmed. With hundreds of vendors, pricing models, packages, and access methods, it is difficult to know where to begin or how to prioritize. It is easy to get swept from one crisis to another, piling up the items on your to-do list while feeling like you aren't making any headway. It is easier still to feel like you have to do it all alone.

That is why we wrote *Electronic Resources Librarianship*. Not long ago, both of us were new to the e-resource world and had to cope with the same feeling of being overwhelmed. We went to conferences, asked questions, and made the same Jell-O joke, trying to get a handle on what is inherently a slippery topic. In *Electronic Resources Librarianship*, we walk you step-by-step through the first few months of being an electronic resources librarian, showing you exactly what needs to be done and how you can do it. We document the tricks and tools we have discovered and now use in our day-to-day jobs. Sprinkled throughout are concrete examples and suggestions, including checklists, worksheets, and sample language. We also dive into goal setting and time management, helping you balance long-term projects with the constant deluge of daily demands.

We want you to thrive, not just survive. Therefore, we begin with this first, most important piece of advice: You are not alone. We have included an entire chapter devoted

to the support systems available to you right now to answer your questions and bridge your knowledge gaps. Although this job often feels like an island unto itself, the secret to effective electronic resource management isn't the tricks and tools you learn but the relationships you form. From coworkers and colleagues to vendors and interest groups, it is the relationships—both internal and external—that will define your success in your position.

Organization

Electronic Resources Librarianship is divided into two parts. The first part discusses the basic tools, terminology, skills, and concepts you need to begin work as an e-resources librarian.

Chapter 1 defines what an e-resource is and introduces you to the typical job duties of an e-resources librarian, with a particular focus on the e-resources life cycle.

Chapter 2 reviews the technology used in e-resource management, including the major access tools and authentication methods used by library systems.

Chapter 3 discusses the different types of e-resource vendors and how to interact with them via various communication methods. We provide a checklist for information to be gathered about your vendors.

Chapter 4 introduces the formats and order types available when acquiring e-resources. We also discuss budgeting, renewal workflows, and acquisitions checklists for renewed, trialed, cancelled, and newly acquired resources.

Chapter 5 is all about help tickets: how to solicit them, how to respond to them, and how to triage or troubleshoot them. We provide a checklist for help ticket submission and subscription maintenance.

Chapter 6 provides an overview of licensing. We review the common components of licenses, as well as discuss negotiation tactics. A checklist for license review is provided in appendix 1.

Chapter 7 reviews usage statistics: what they are, where to find them, and what to do with them. We also explain the effects of discovery on usage.

Chapter 8 introduces concepts about collection development, highlighting qualitative evaluation considerations that can be used in conjunction with usage to evaluate your e-resource renewals. We also discuss how to collaborate effectively with your library coworkers.

The second part of the book is dedicated to setting you up for long-term success by focusing on effective goal setting, delegation, and time management, as well as tips and tricks for keeping organized and avoiding burnout.

Chapter 9 covers your first ninety days on the job, including the questions you need answered, the people you need to meet, and the tools you should have in your toolkit. We provide worksheets for the questions you need answered and the people you need to meet in appendixes 2 and 3.

Chapter 10 concerns goal setting: how to define goals and develop habits, as well as tips and tricks for staying organized.

Chapter 11 contains detailed instructions on how to delegate e-resource tasks to others, including what to delegate and how to create effective documentation, as well as recommendations for leading a team in collaborative e-resource work.

Chapter 12 lists all the support systems you have available to you right now, from Listservs to professional organizations to cold-calling a fellow librarian.

We hope that our introduction to e-resource concepts and workflows will help you orient yourself in your particular library environment. We encourage you to take our sample checklists, worksheets, and example language and build the foundational resources you need to support yourself throughout your daily workflows. Remember to always remain open-minded and curious regarding evolving technology or practices outside those your library uses. The more you attune yourself to accepting the deluge of information, the more quickly you will be positively influenced by what you learn, allowing you to master your own realm of expertise.

PART I

TOOLS, TERMINOLOGY, SKILLS, AND CONCEPTS

WE DEVOTE THE FIRST PART OF THIS BOOK to discussing the basic tools, terminology, skills, and concepts you need to begin work as an electronic resources librarian. We cover both the technical and interpersonal aspects of e-resource management, including sections on library technology, troubleshooting, usage data analysis, and working with others to find, evaluate, and license resources. This foundational information is intended as a launching-off point for further investigation, building your confidence and laying the groundwork for a growing skill set. Although learning is never truly complete in the e-resource world, we hope this section provides you with a good base from which to start.

CHAPTER 1

Electronic Resources in Libraries

IN THIS CHAPTER

- ▷ Defining an electronic resource
- ▷ Exploring the life cycle of an electronic resource
- ▷ Describing the job duties of an electronic resources librarian

THE WORLD RUNS ON ELECTRONIC RESOURCES. From e-books to cloud applications, websites to online newspapers, e-resources define the way we learn, connect, communicate, and interact with one another. As purveyors of information, libraries have always sat at the cutting edge of information technology. Long before Tim Berners-Lee created the World Wide Web in the early '90s, effectively opening up the Internet to the general masses, libraries were busy collecting and distributing electronic materials via diskettes, CD-ROMs, and online catalogs (Hawthorne, 2008). Although the technological landscape has radically changed over the past three decades, libraries continue the same work today, providing access to hundreds of thousands of online materials through subscriptions, consortial agreements, and direct purchases.

However, as e-resources continue to balloon in both size and scope, giving rise to a multitude of options, opportunities, and difficulties, libraries are scrambling to adjust their workflows and procurement models to accommodate their ever-growing collection of e-resources. Many libraries are now investing in a dedicated electronic resources librarian, whose sole job is to manage electronic materials—from acquisition to evaluation to renewal or cancellation.

Chances are that if you have picked up this book, then you are stepping into the role of e-resources librarian for the first time, either by choice or through a re-imagining of your job responsibilities. While the world of e-resources may seem daunting at first, we hope this book will give you the confidence and the skill set to successfully tackle any e-resource challenge.

What Is an Electronic Resource?

Like many things involved in e-resource work, the definition of what is considered an electronic resource is nebulous. The Library of Congress defines an electronic resource as "any work encoded and made available for access through the use of a computer," which means an e-resource could be anything from a giant e-book collection to an institution's dissertation repository to an old picture stored on a CD-ROM (Library of Congress, 2016). However, very few e-resources librarians deal with either institutional repositories or CD-ROMs. These responsibilities fall more often to a digital services librarian or archivist.

Instead, when libraries talk about e-resources, they are primarily referring to "remote access" media (i.e., media accessed over a network, such as the Internet), which has either been purchased or licensed through a third-party vendor. This is opposed to "direct access" media, which is accessed via physical objects, such as compact discs or thumb drives. Remote access media includes things such as:

- E-books
- E-journals
- Online periodicals (e.g., newspapers and magazines)
- Online audiobooks
- Streaming videos
- Online image collections
- Specialized content databases
- Aggregated content databases
- Online bibliographies, catalogs, and indexes

Depending on the library's collection development goals, this list could also expand to include things such as datasets, downloadable software/applications, websites, and freely available or open access (OA) content.

EXAMPLE OF REMOTE ACCESS MEDIA

EBSCO is one example of a third-party vendor who licenses remote access media. Libraries who subscribe to EBSCO's e-book packages make large collections of e-books available to their patrons for download to their personal computers or devices. While many libraries choose to make records of EBSCO titles available for patrons to search or browse in their catalogs or discovery layers, the actual transmission of the e-book files does not occur between the library and patron. Instead, the book files are downloaded directly from EBSCO's servers to the patron's computer. At no point is the library in possession of the files.

What Does an Electronic Resources Librarian Do?

The e-resources librarian is responsible for the day-to-day management of a library's electronic resources. Since this is a relatively new position in the world of librarianship, and as such is still in the process of being molded and defined, specific e-resources librarian job duties often vary greatly from institution to institution. However, broadly speaking, daily tasks typically fall into six categories, or phases, which are collectively known as the electronic resources life cycle.

The Electronic Resources Life Cycle

The most definitive version of the e-resources life cycle comes from a crowdsourcing project run by Jill Emery and Graham Stone titled TERMS, or Techniques for Electronic Resource Management. Adapted from Oliver Pesch's e-resources life cycle, the project breaks down the six phases every electronic resource travels through during its lifespan and invites librarians to submit their best practices or techniques for managing e-resources during each phase (Emery and Stone, 2011). The phases, last updated in 2017, are as follows:

1. Investigation
2. Acquisition
3. Implementation
4. Ongoing evaluation and access
5. Renewal or cancellation review
6. Preservation

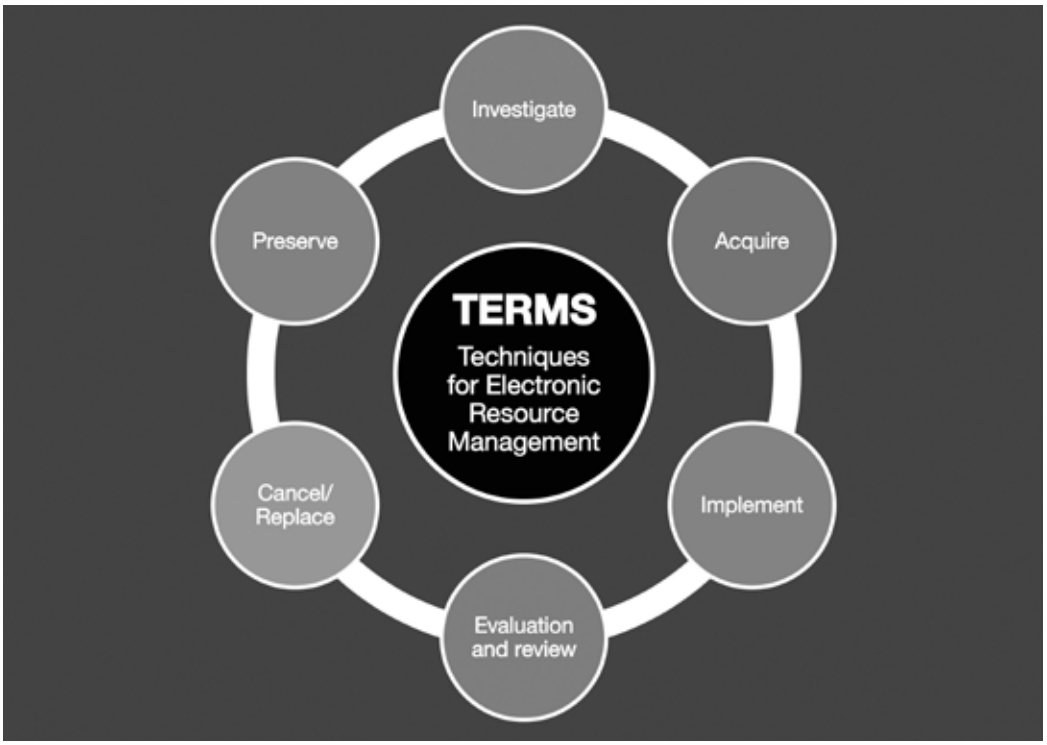


Figure 1.1. The electronic resources life cycle

When thinking about the types of tasks assigned to an e-resources librarian, it is often helpful to divide them by these phases, as shown in the following sections.

Investigate

During the investigation phase, the e-resources librarian is actively seeking out information about potential e-resources to add to the library collection. This could be at the request of a patron, in response to a library collection assessment, or as part of ongoing collection development goals. Responsibilities may include:

- Assessing the library's and patrons' needs
- Finding and evaluating new products
- Running trials
- Soliciting feedback about potential resources

Acquire

If the library has decided to purchase or license a new electronic resource, the e-resources librarian may then be tasked with overseeing its acquisition. This often includes things such as:

- Negotiating pricing
- Negotiating license or business terms
- Placing orders
- Paying invoices

Implement

Once the acquisition is finalized, the e-resources librarian will then move on to implementing the e-resource within the library's technical infrastructure. This means doing things such as:

- Establishing access
- Setting up authentication methods
- Customizing the vendor platform's interface
- Making the e-resource discoverable via the library's access tools, such as:
  - OPAC (library catalog)
  - Discovery layer
  - A–Z lists
  - Research guides

Evaluate and Provide Access Support

Just as with other technologies, e-resources require constant evaluation and support to keep functioning at their best. As a result, the e-resources librarian will need to continue to provide active support for acquired e-resources even after they have been fully integrated into the library. Responsibilities often include:

- Responding to patron access issues
- Tracking and troubleshooting problems

- Monitoring changes to the vendor's content and platform
- Updating the vendor with institutional changes (e.g., changes in IP ranges)

Review for Cancellation or Renewal

After a length of time, e-resources need to undergo a review to decide whether or not they are still benefitting the library and its patrons. For licensed e-resources, the review typically corresponds with the expiration of the license agreement, which usually means once a year. The review process may consist of:

- Gathering and analyzing usage statistics
- Soliciting patron and librarian feedback
- Comparing alternative resources

Once the review process is complete, the e-resources librarian will then be tasked with:

- Deciding whether to renew or cancel
- Informing the vendor of the decision to renew or cancel
- If the decision is to cancel, removing the e-resource from the library's technical infrastructure unless a perpetual access agreement is in place

Preserve

E-resources librarians must also be concerned with preserving an e-resource, even after a vendor has discontinued supporting the resource and removed it from the platform. The involvement of the e-resources librarian varies from institution to institution but generally includes:

- Ensuring continued access for e-resources with perpetual access agreements
- Downloading and storing archive copies
- Checking the availability of an e-resource in a preservation initiative such as LOCKSS (Lots of Copies Keep Stuff Safe) or CLOCKSS (Controlled LOCKSS)

The Evolving Duties of Electronic Resources Librarians

Electronic resources librarians operate in a fast-paced environment, encountering new resources, technologies, and access models every day. In this ever-evolving world, resiliency is not just desirable but necessary. As the types and volume of e-resources continue to

PERPETUAL ACCESS

Perpetual access agreements ensure that a library maintains ongoing access to a particular e-resource, such as an e-book or e-journal, even after the library's subscription ends or the vendor no longer supports the resource on its platform. We discuss perpetual access further in Chapter 4.

increase within library collections, the e-resources librarian must continue to adapt, looking to new ways and new collaborators in order to successfully manage those resources.

Key Points

- Libraries have been purveyors of electronic resources even before the invention of the World Wide Web.
- The term "electronic resource" encompasses both "direct access" (physical) media and "remote access" (accessed via a network) media.
- Electronic resources librarians primarily work with "remote access" media (i.e., media that is accessed via a network like the Internet).
- Electronic resources librarians manage e-resources throughout the six phases of their life cycle: investigation, acquisition, implementation, ongoing evaluation and access, renewal/cancellation review, and preservation.

References

Emery, Jill, and Graham Stone. "What is TERMS?" *TERMS: Techniques for Electronic Resource Management* (tumblr blog). Last modified September 9, 2011. http://6terms.tumblr.com/post/9997650918/what-is-terms.

Emery, Jill, Graham Stone, and Peter McCracken. "TERMS: Techniques for Electronic Resource Management." Getting back on TERMS (Version 2.0). Accessed November 30, 2017. https://library.hud.ac.uk/blogs/terms/.

Hawthorne, Dalene. "History of Electronic Resources." In *Electronic Resource Management in Libraries: Research and Practice,* edited by Holly Yu and Scott Breivold, 1–15. Hershey, PA: Information Science Reference, 2008.

Library of Congress. "Electronic Resources." Library of Congress Collections Policy Statements: Supplementary Guidelines. Last modified August 2016. https://www.loc.gov/acq/devpol/electronicresources.pdf.

Additional Readings and Resources

NASIG. *NASIG Core Competencies for Electronic Resources Librarians.* Last modified January 6, 2016. http://www.nasig.org/site_page.cfm?pk_association_webpage_menu=310&pk_association_webpage=7802.

Pesch, Oliver. "Library Standards and E-Resource Management: A Survey of Current Initiatives and Standards Efforts." *Serials Librarian* 55, no. 3 (2008): 482.

Sutton, Sarah, and Sheri Ross. *Guide to Electronic Resource Management*. Santa Barbara, CA: Libraries Unlimited, 2016.

Verminski, Alana, and Kelly Marie Blanchat. *Fundamentals of Electronic Resource Management*. New York City: Neil Schuman Publishers, 2017.

Weir, R. O. *Managing Electronic Resources: A LITA Guide*. Chicago: ALA TechSource/American Library Association, 2012.

Weitz, Jay. *Cataloging Electronic Resources: OCLC-MARC Coding Guidelines.* Last modified July 11, 2006. https://www.oclc.org/support/services/worldcat/documentation/cataloging/electronicresources.en.html.

Wikoff, K. *Electronic Resources Management in the Academic Library: A Professional Guide*. Santa Barbara, CA: Libraries Unlimited, 2012.

CHAPTER 2

Let's Talk Tech

IN THIS CHAPTER

- ▷ Defining basic terminology
- ▷ Exploring the strengths and weaknesses of access tools
- ▷ Listing methods of authentication
- ▷ Understanding knowledge bases and management systems

FOR MANY, THE MOST INTIMIDATING PART about getting into e-resource work is the technology that surrounds it. Technology evolves at a rapid pace. What is new and cutting-edge one day is outdated the next. Technologists have even put a number to this rapid rate of development, which is known as Moore's law. First written about in 1965 by Gordon Moore, the co-founder of Intel, Moore's law is the observation that the number of electrical components that fit on a computer chip doubles every two years, resulting in our technology getting smaller, faster, and cheaper (and thus accessible to more users and innovators) at an exponential rate (Moore, 2006).

However, don't let this alarm you. Although an appreciation and interest in technology are always helpful for an e-resources librarian, there is no need for you to transform yourself into an IT expert. By mastering just a few basic concepts, you will be able to handle the majority of the technical aspects required by e-resource work.

Basic Terminology

Before we launch into our first concept, we should review some computer acronyms and terminology, which will be used throughout this chapter. We are also operating under the assumption that you have used a computer before and are familiar with the fundamentals of web browsing and searching (for instance, terms such as "mouse," "browser," "scrolling,"

"clicking," "website," "web page," and so on). If this already sounds too intimidating for you, we suggest taking a class or reading a book about computer basics before continuing.

Cache: a browser cache stores pieces of website information on your computer so that it can be accessed faster in the future. This helps the websites you visit load more quickly.

Cookie: a small piece of information (data file) about a user's activities or preferences on a website. Cookies are downloaded to your computer when visiting a website and are accessed again when you return. They are how online forms can remember previously entered information.

HTML (Hypertext Markup Language): a web-coding language that uses tags, denoted by the symbols < and >, to create web pages. HTML is usually paired with CSS (a style sheet which defines the appearance of a website) and JavaScript (a programming language).We will not be covering CSS or JavaScript in this book.

Hyperlink: a clickable electronic link that leads a user directly from one web page or web resource to another.

IP (Internet Protocol) address: the specific location of a computer or other electronic device connected to a network like the Internet. An IP address is expressed by a series of numbers, such as 25.255.25.2555.

Platform: (1) as used in computer science, the hardware and software (operating system) on which an application or program is run; for example, a cross-platform game is a game which can run on both a Mac and Windows computer; and (2) as used in electronic resource management, the overall web environment (e.g., website) used to host an e-resource application or service; platforms usually correspond with specific vendors, but vendors may have multiple platforms.

Operating system (OS): the software on a computer or device which manages the hardware and other program applications. All computerized devices have operating systems, including smartphones, tablets, and electronic readers. Examples of operating systems include Microsoft's Windows, Apple's macOS and iOS, and Google's Android.

Server: a computer that provides data or services to other computers (called clients) over a network like the Internet. There are many types of servers, including web servers, which provide access to websites.

URL (Uniform Resource Locator): the specific location, or web address, of a resource (web page, image, file, etc.) on a computer network like the Internet. URLs begin with either http:// or https://.

Access Tools

The first concept you need to master is that of an access tool. Access tools, sometimes called retrieval tools or discovery tools, are the various technologies through which a patron can gain access to a resource. Up until the 1980s, a library's primary access tool was the card catalog. Patrons or librarians would use the card catalog to look up the call number of a book, periodical, or other resource, which was printed on a small paper card. The call number would, in turn, lead them to the item's physical location within the library, where the patron was then free to access its contents. Obviously, we have come a long way from the card catalog, but the basic idea of an access tool remains the same.

In terms of electronic resources, patrons use access tools to find the URL of a resource rather than its call number. A URL, short for Uniform Resource Locator, is essentially

an e-resource's online address. By typing a URL into the address bar at the top of a web browser or by clicking its hyperlink, patrons are led directly to the resource's online location where they are then able to access its contents.

There are several types of access tools libraries might utilize for their e-resources, each with their own strengths and weaknesses. We have outlined the four most common ones below.

OPACs

What Is an OPAC?

An OPAC, or online public access catalog, is an electronic database containing the catalog records of materials available through a library or library system. An OPAC is often referred to as simply the library's "catalog." Patrons and librarians can connect to an OPAC through a computer network (usually the Internet) in order to search for materials and perform specific actions with them. Chances are that if you have ever used a public library's website to look up a book, request a DVD, or put an audiobook on hold, you have interacted with an OPAC.

How Does an OPAC Work?

An OPAC is the direct descendant of the old-fashioned card catalog. Just like the card catalog, an OPAC is comprised of the bibliographic records of items available through a library or library system. These records contain information such as the work's title, author, publisher, publication date, and associated subject headings, as well as access information, such as call numbers, or, in the case of e-resources, URLs or hyperlinks. When a new item is acquired by the library, a bibliographic record is created in a machine-readable format known as a MARC record, which is uploaded into the online catalog as a database entry. The entries can then be retrieved by patrons and librarians searching for specific criteria, such as title, author, or subject heading.

In addition to simple search and retrieval, today's OPACs offer plenty of advanced functionality. Most OPACs are tied directly into the circulation module of the library's ILS (integrated library system), allowing patrons to view the real-time status of an item and interact with it in various ways. OPACs also contain things such as faceted searching (where patrons are able to apply multiple filters to their search results), relevancy ranking (where more relevant items bubble to the top of a results list), and other features which encourage browsing or spontaneous discovery, such as recommendation lists, read-alikes, or virtual shelves.

What Are the Strengths and Weaknesses of an OPAC?

Because of their historical ties to the card catalog, OPACs are built primarily to accommodate physical or physical-like items. In terms of e-resources, this means an OPAC handles materials that mimic traditional media relatively well, such as e-books and audiobooks. An OPAC does less well with non-traditional media, such as blogs, websites, discussion forums, and datasets. They also do poorly with serialized media, including e-journals and online newspapers or newsletters.

Public libraries that deal mainly with physical and physical-like materials tend to favor the OPAC as their primary access tool (Breeding, 2017). However, academic libraries, especially those with a heavy research emphasis, have been shying away from the OPAC over the last decade (Breeding, 2015a; Hoffman and Yang, 2012; Spezi et al., 2013). They have instead been gravitating toward other access tools, which we cover below.

OPACs are useful for physical-like items, such as e-books, audiobooks, and streaming video. OPACs are less useful for:

- Non-traditional media, such as websites or datasets
- Serialized media that live in multiple online locations
- Article- or chapter-level searching

A–Z Lists

What Is an A–Z List?

An A–Z list is exactly what the name suggests: It is an alphabetical list of resources, usually e-resources, ordered by name. A library may have several A–Z lists, each containing a different type of e-resource. For instance, a library may have an A–Z list for its databases (which we affectionately call DAZL), an A–Z list for its e-journals (EJAZL), and yet another A–Z list for its e-books (EBAZL). These lists could be as simple as a bulleted list on a web page, or they could be part of a more complicated holdings management system. Either way, the lists tend to be minimalistic when compared to the lengthy catalog records in an OPAC. They display just the e-resource's essential information, such as its name, brief description, access notes (e.g., a journal's available dates or a database's login protocol), and its URL or access hyperlinks.

How Does an A–Z List Work?

Libraries create A–Z lists in a variety of ways. The most simplistic method is to manually create an alphabetical list on one of the library's web pages using HTML or a content (i.e., website) management system (CMS). Whenever the list needs to be updated, such as when the URL, title, or publisher changes, the manager of the A–Z list manually goes in and makes the updates. These types of A–Z lists have little to no advanced features; they are navigated merely by patrons scrolling down the web page until they find the resource they need. Therefore, these kinds of web page A–Z lists are only practical for lists with a handful of entries.

Most libraries today have expanded their electronic collection to the point that old-school A–Z lists are impractical, both for their patrons (who are forced into an endless "scroll of death" to find a resource) and for the librarians who maintain them. Instead, many libraries are choosing to invest in a commercial product. These products can either be a stand-alone purchase or tied into other services, such as an ILS, holdings management system, or discovery system. Libraries may even choose to use a different vendor for each type of resource (e.g., they may use Springshare's LibGuides for their database A–Z list and ProQuest's 360 Link for their e-journal A–Z list). The functionality of the A–Z lists will vary from vendor to vendor but will generally include options such as browsing by letter, filtering by subject, and searching by title, keyword, ISBN, or ISSN.

Figure 2.1. E-journal A–Z list entry

Figure 2.2. Database A–Z list entry

Some vendors even monitor URL and publisher/title changes on behalf of their clients, so the library does not need to manually update them.

What Are the Strengths and Weaknesses of an A–Z List?

A–Z lists, especially A–Z lists created through a commercial product, are built with e-resources specifically in mind. As a result, they are well equipped to handle electronic access, at least at the macro level. This strength is most apparent with e-journal A–Z lists. While OPACs can and have represented electronic serial resources within their MARC records, these MARC records have to be individually maintained and updated by libraries to accurately reflect their local coverage dates. Once a library has acquired hundreds of e-journals, the manual MARC record update process becomes too time-consuming to maintain. E-journal A–Z lists solve this problem because they are maintained via a vendor's centralized database and allow for auto-updating of the bibliographic metadata of the title. A–Z lists are useful for:

- Access to e-resources at the macro level
- Non-traditional media, such as websites or datasets
- Serialized media

A–Z lists are less useful for:

- Access to e-resources at the micro level
- Article- or chapter-level searching

Discovery Layers

What Is a Discovery Layer?

Discovery layers are the newest access tool on the market. Powered by centralized, pre-harvested metadata indexes, discovery layers break down the library's information silos, allowing patrons to search all of the library's content—including the full-text of articles and books—using a single search box. This means, rather than searching the catalog for a book, an A–Z list for an e-journal, and an aggregator database for a full-text article, patrons need only navigate to the library's discovery layer. Information silos which can be accessed via a discovery layer include:

- Library catalog (OPAC)
- Holdings/resource management system
- Electronic resource management system (ERM)
- Subscription databases
- Institutional repositories
- Digital archives

In addition, since much of the centralized index is pre-harvested, a discovery layer can also allow patrons to search for content which the library may not own or subscribe to but could potentially obtain through services like interlibrary loan.

How Does a Discovery Layer Work?

Discovery layers are powered by centralized indexes composed of two general types of metadata: local library metadata and pre-harvested metadata from various publishers, aggregators, vendors, and open-access sources. The local library metadata represents the library's unique local collection, such as a print collection, digital archives, or institutional repository. The metadata for these items—usually in the form of MARC records—is uploaded from the library's ILS (or archives or institutional repository) to the central index so it can be included in the discovery layer's search results. The library itself manages and uploads these records as part of either a manual or automated upload process.

Pre-harvested metadata, however, is added to the central index by the discovery service provider. The provider proactively seeks out metadata from publishers, aggregators, vendors, and open-access sources, either by entering into agreements with the content provider or by taking advantage of freely available data. This metadata often includes not just the title-level or database-level information, as might be found within an OPAC or A–Z list, but also commercial information, such as bundles or subscription packages, and micro-level details, which allow for article, chapter, or even full-text indexing. This means a discovery layer is more flexible in terms of search and retrieval than either an OPAC or A–Z list.

What Are the Strengths and Weaknesses of Discovery Layers?

The strengths of a discovery layer lie mostly in its unified search capabilities. Through their centralized indexes, discovery layers break down the various information silos surrounding libraries, allowing patrons to search a singular interface to access a library's ma-

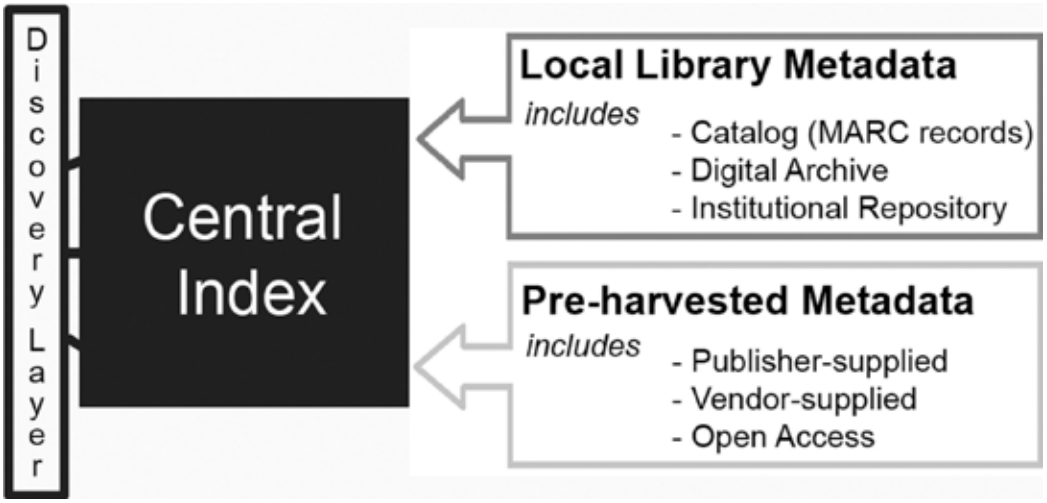


Figure 2.3. Central index flow chart

terials. Because of this, patrons who are accustomed to single-bar search engines such as Google find discovery layers more convenient and user-friendly (not to mention "pretty rad") compared to other access tools (Lundrigan, Manuel, and Yan, 2015). The combination of local library and pre-harvested metadata—especially the inclusion of full-text indexing—also allows for a broader and more forgiving search experience. As opposed to OPACs, whose navigation still relies heavily on controlled subject headings and carefully applied Boolean operators, discovery layers cast a wider net, often pulling in items whose full-text contains the desired keywords or phrases even when their subject headings do not.

Another benefit of the inclusion of pre-harvested metadata is the ability for patrons to search for items which the library may not have access to but could potentially obtain through services such as interlibrary loan (ILL). Since the pre-harvested metadata is not library-specific and exists within the centralized index regardless, a library can choose to make certain resources discoverable even though it does not own them. Links within the search result would then lead patrons to an auto-populating ILL form, where they can quickly request the item. This broadens the search capabilities of the discovery layer even further, allowing for the discovery of other, possibly better resources that the library may find too expensive to purchase outright or does not know that patrons would utilize.

While discovery layers certainly sound ideal for a library's discovery needs, they do come with several problems—some of which you may be familiar with from other web-style search tools. First, discovery layers generate a lot of results. Because they are searching content the library both does and does not own, discovery layers often return millions of results rather than a handful, like OPACs. This may be great for a student starting a research project but frustrating for a patron who just wants to know if the library owns a copy of *Macbeth*. This is especially true if the first page of the search is filled with results of book reviews, critiques, or analyses of *Macbeth* rather than the play itself, which leads to . . .

Second, discovery layers are highly limited by their relevancy ranking issues, which patrons can try to circumvent by applying facets and filters to their search results. Unlike OPACs and A–Z lists whose discovery is dependent on clearly defined criteria, discovery layers cast a wide net, pulling in resources based not just on title and author but also

words and phrases within the text itself. Without a good relevancy ranking formula to push pertinent results to the top, the truly relevant results can get lost in the slosh. Studies have shown that patrons seldom scroll beyond the first page of search results, so getting the best results at the top is an important endeavor (Asher, Duke, and Wilson, 2013). Even though relevancy ranking continues to improve, discovery layers pull in so many results that facets and filters are essential for narrowing down the field to the right subject, format, or publication type. For patrons unfamiliar with faceted searching or who are looking just to search the resources of a particular subject, this can be a major obstacle to overcome. Perhaps this is why graduate students and researchers prefer to comb their favorite subject databases rather than wade through the discovery layer weeds (Lundrigan, Manuel, and Yan, 2015).

Third, discovery layers are heavily reliant upon publisher- and vendor-created metadata. Most of the metadata in the index comes from publishers or vendors who may or may not adhere to good metadata creation standards (or even keep their metadata up-to-date). As a result, the metadata within the index is of mixed quality, which can lead to some unusual errors with discoverability and linking. We will be looking further at the effects of metadata on discoverability, particularly in relation to troubleshooting, in later chapters. Discovery layers are useful for:

- Access to e-resources at the micro level
- Article- or chapter-level searching
- Broad, general searches

Discovery layers are less useful for:

- Known-item searching
- Subject-specific searching

Research Guides

What Is a Research Guide?

A research guide is a curated collection of information resources, often in the form of a text document or web page, which a librarian has recommended for a particular subject, topic, academic course, or question. Research guides typically combine a variety of resource types—including physical, electronic, and web-based items—with a librarian's tips, advice, or explanations about their use. The guides are intended to aid patrons in their information search by directing them to especially relevant resources or to items that might otherwise be overlooked or difficult to access.

How Do Research Guides Work?

Research guides are usually created using a content management system (CMS), such as Springshare's LibGuides. Content management systems simplify the creation of web pages by providing an intuitive user interface for adding links, pictures, text, widgets, and so on. This way, librarians do not need to know any HTML or other web-coding languages in order to display their guide content on the Internet.

A research guide provides access to items through hyperlinks. Hyperlinks are clickable electronic links that lead a user directly from one web page, web document, or web media to another through the use of its web address, or URL. The link is usually differently colored from the surrounding text (the standard hyperlink color is a bright blue) and can either appear as the URL or as readable text. If you have ever clicked a search result in Google or navigated to a company's web page, you have used a hyperlink.

In a research guide, a librarian creates hyperlinks to resources using their URLs. For physical items, the URL is usually to the item's OPAC record, which would contain further information about the resource, such as its call number or availability. For e-resources, however, the URL can be that of the resource itself, so that patrons can access the PDF, web page, e-book, database, and so on without having to navigate through intermediary pages.

What Are the Strengths and Weaknesses of Research Guides?

Research guides are useful for providing a curated list or collection of resources specific to a subject, topic, course, or question. They are great jumping-off points for patrons not sure where to begin their inquiries and for showcasing the range of resources available at the library. Research guides are also fantastic for capturing nonconventional resources, such as web pages or free-/open-access items since their format is extremely flexible.

Research guides are less useful for searching of any kind and cannot be used as a replacement for either an OPAC or a discovery layer. Research guides are also time-consuming to make and require a handle on good web design to keep the web pages from becoming unreadable. In general, e-resources librarians do not deal extensively with research guides, as these lie more in the reference and access services realm. However, you may be called upon to help with linking or widget issues, so it is helpful to understand how they work. Research guides are useful for:

- Providing a curated list of resources
- Showcasing the range of resources available
- Providing a jumping-off point for inquiries

Research guides are less useful for any kind of searching.

Methods of Authentication

The second concept you need to master is methods of authentication. Used widely in the computer world, the word "authentication" simply means to prove one's identity as an authorized (i.e., legitimate) user. In our case, this means a patron proving his or her affiliation with a library, either as a cardholder, walk-in user, or another type of patron.

As part of their sales and licensing contracts, vendors require that patrons prove their affiliation with the purchasing library before being granted access to an e-resource. There are several ways for a patron to do this. We cover the most common ones below.

Username and Password

We are all familiar with the username and password method of authentication. Whether signing into your e-mail, bank account, virtual shopping cart, or social media handles,

you use a dedicated username and password—the one you chose when signing up for the service—to gain access. Some electronic resources function the same way. When a patron wants to access a resource, he or she must first register (or have a librarian register) a username and password with the vendor. The username/password the patron creates must adhere to the rules and security standards set by the vendor: for example, at least one number, capital letter, special symbol, and so on. The patron must then sign in with that username and password whenever he or she wishes to access the resource in the future.

While we may all be familiar with this setup, username and password authentication is less than desirable in a library environment. For instance, libraries seldom subscribe to content from only one vendor. This means patrons would be forced to register again and again whenever they need content from a different vendor. Since the vendor also sets the login requirements, patrons may wind up with several usernames and passwords, which they must add to the ever-growing list of logins they use in their personal lives. And even if a patron manages to register with the same username and password for all the vendors, it only takes one moment of forgetfulness for the consistency to be lost. Then, the patron must choose to either reset the passwords with all the vendors or else keep track of which ones have changed. As you can imagine, this is an enormous burden for a patron who only wants to download a couple PDFs.

For this reason, libraries shy away from username/password authentication, except in rare instances. Luckily, most vendors offer other, more reasonable options for patron authentication.

IP Addresses

One of the most popular ways to authenticate, especially for academic libraries, is via IP address. As you will recall from our terminology section at the beginning of the chapter, an IP address represents the specific location of a computer or device on a network. For vendors, an IP address functions similarly to a physical address. When a computer connects to an e-resource over the Internet, the resource (or, technically, the resource's hosting platform) asks the computer where it lives. If the computer answers with an IP address on the approved list the library has provided to the vendor, the patron is granted

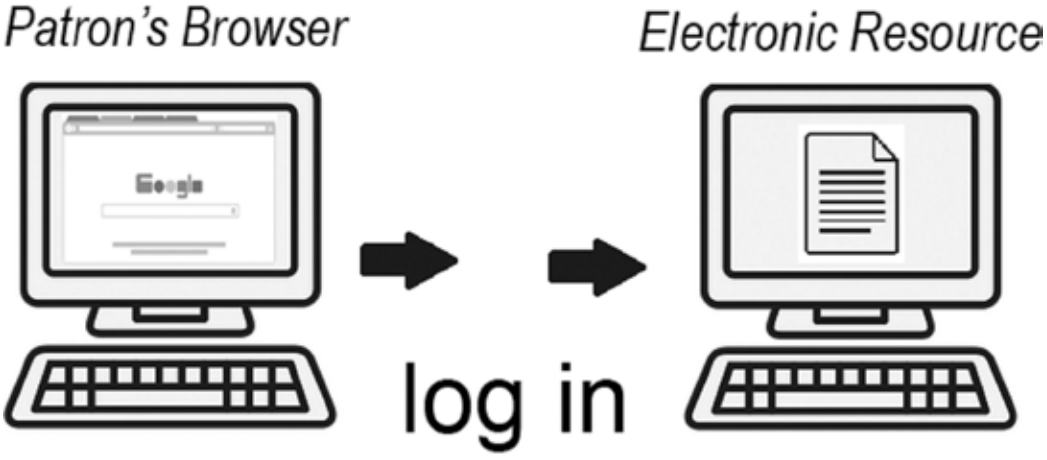


Figure 2.4. Username/Password authentication

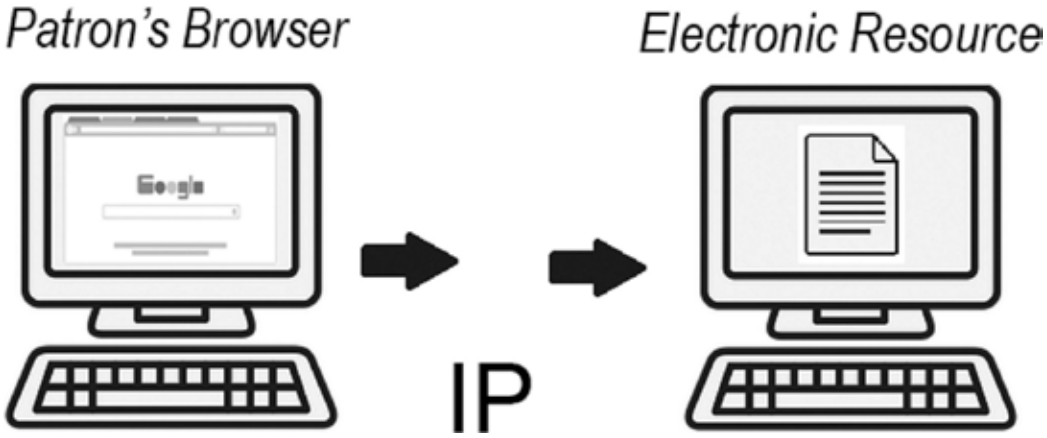


Figure 2.5. IP authentication

access. If the address is not on the list, the patron is redirected to an error or payment message (paywall).

Since the address exchange happens instantaneously, away from the eye of the patron, IP authentication is great for providing seamless, mass access. Patrons never have to enter a username or password, click through a prompt, or select their institution from a drop-down list. With these barriers removed, they can immediately start consuming the content.

However, this type of access comes with several problems. First, IP authentication is inherently insecure. Anyone using the institution's Internet (wireless or otherwise) has complete, unfettered access to the resource, including people who may not be covered under the library's license or those who may be accessing it for nefarious purposes. Second, because the patron is not prompted to enter any identifying criteria, the library is not able to collect demographic information, which in aggregate could help inform its collection development decisions. Last and perhaps most importantly, the patron is restricted to the library's or campus's physical location. Once patrons wander outside the institution's Wi-Fi range, they lose all access. Since one of the greatest benefits of e-resources is the ability to access them from anywhere, this is clearly undesirable. Fortunately, other authentication methods can be used in conjunction with IP authentication in order to grant access to these remote (off-campus) patrons.

Proxies

A proxy or proxy server is a popular way for libraries to authenticate remote patrons. A proxy is a computer server which sits between a patron's computer and an elec-

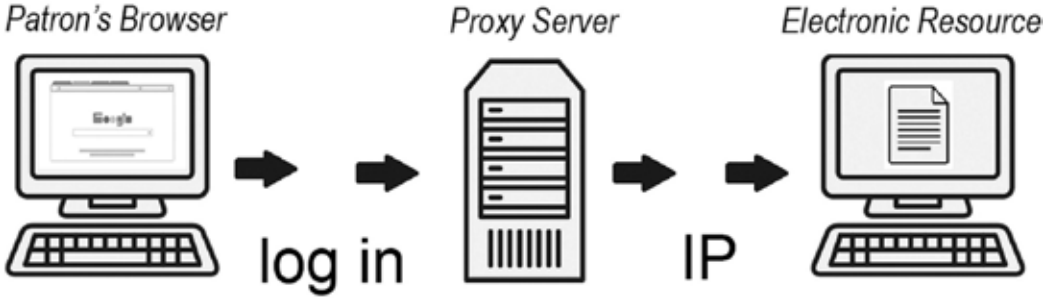


Figure 2.6. IP authentication via proxy server

tronic resource. When a patron's web browser attempts to connect to an e-resource from a library access tool, the browser is redirected to the proxy server, which asks the patron to log in using either a library card number or institutional credentials. Once the patron has successfully logged in, the proxy then connects the web browser to the desired resource using its own IP address. Since the proxy's IP address is on the list of authorized IPs given to vendors, patrons appear to be "on campus" while accessing the resource.

Proxy servers can be run by either the library (or institution) or by a third party, such as a library consortium or ILS vendor. Therefore, who is in charge of configuring and maintaining the proxy server will vary from library to library. While an e-resources librarian is typically not in charge of the technical aspects of the proxy server, which should be handled by qualified IT or library systems personnel, it is important to know a few aspects about how proxies function.

A proxy only affects the web browser on which a patron logs in. Once patrons log into the library's proxy server, they are using the proxy, and therefore its IP address, to access all content going forward. However, this change in IP only occurs for the browser which originally logs in. So, for instance, if a patron logs in to the proxy using Internet Explorer, but then attempts to access an electronic resource using Mozilla Firefox, her browser will retain its original IP address and thus be seen as being "off campus." She must either log in to the proxy server again or else be denied access to the resource.

Proxy sessions timeout. Patrons begin a new session as soon as they log in to the proxy server. While the session is running, they will not need to log in to the proxy server again, even when accessing different resources, provided they do not change browsers, clear their cache and cookies, or otherwise interrupt the connection. However, sessions do not last forever. After a period of inactivity (which varies based on the proxy settings), patrons are automatically disconnected from the proxy server.

The e-resource's URL needs to redirect to the proxy server. When an e-resource is added to a library's access tools, its URL must include instructions to direct the browser to the proxy server; otherwise, the URL will continue on to the resource without presenting the patron with the option to log in. This redirect can be accomplished in a couple ways but usually involves modifying the resource's URL. For instance, in EZproxy, a popular open source proxy software owned by OCLC, the access URL is prepended with a proxy prefix: http://www.example-resource.com is prepended with http://ezproxy.yourlibrary.org/login?url= to become http://ezproxy.yourlibrary.org/login?url=http://www.example-resource.com. Because URL modification is necessary, remote patrons must access the resource through one of the library's access tools (as opposed to Googling its URL).

The proxy server needs to know what resources the library has. The primary function of a proxy is to grant access to library-subscribed or library-owned e-resources. As such, proxies should not be used for resources that are either freely available or those for which the library has no access rights. When a new e-resource is acquired by the library, its information—such as its starting URL, domain, and hostnames—needs to be added to the configuration of the proxy. Often, the task of entering or relaying this information falls to the e-resources librarian. The e-resources librarian may also be responsible for relaying changes in URLs and for removing cancelled resources from the proxy configuration.

VPN

VPNs, or virtual private networks, are another popular authentication method that manipulates a computer's or device's IP address to grant users remote access. Similar to proxies, VPNs act as a middleman, sitting between a patron's computer and an e-resource. A patron connects their computer to the VPN, which in turn connects to the resource. Since the VPN's IP address is on the approved list given to vendors, the computer is seen as originating from the library or purchasing institution (i.e., as being "on campus"). However, unlike proxies, VPNs do not prompt users to log in once they reach the resource. Instead, a patron must already be connected to the VPN before any attempts at access are made.

In order to use a VPN, patrons need to download specialized software onto their computers and configure it with the settings specific to their library or institution. VPN set up and configuration varies based on the software and is typically handled by the institution's IT department, which provides instructions and assistance to patrons. Once the software is installed on the computer, a patron needs only to launch the program and log in. They will remain logged into the VPN, and thus able to access all of the library's online resources, until they choose to log off.

Since the login happens within the software on the patron's computer rather than in a browser, all connections made to the Internet are automatically filtered through the VPN. This means patrons may switch browsers, clear their cache and cookies, or otherwise fiddle with their browser settings and still be able to access the library's e-resources without having to log in again.

VPNs are more secure than either IP or proxy authentication. In fact, because VPNs not only mask a patron's IP address but also heavily encrypt a computer's Internet traffic, IT experts recommend using VPNs for sensitive personal affairs, such as banking and online shopping (Eddy, 2017).

However, VPNs also come with a few downsides. For starters, the VPN installation process is much more difficult and time-intensive than the other authentication methods we have discussed. The installation process can also seem intimidating to new users or those who feel uncomfortable with technology. Furthermore, the software must be installed on every device the patron intends to use for accessing library resources. Patrons who regularly use multiple devices—such as a personal laptop, a smartphone, a tablet, and a home desktop—would either have to install and configure the software on every machine or else limit their library use to one or two devices. This

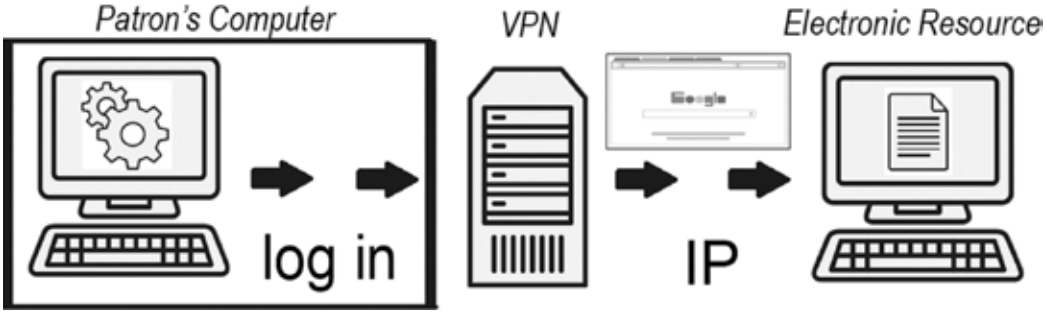


Figure 2.7. IP authentication via VPN

would also mean patrons must rely on a personally owned device rather than a friend's computer or a public workstation at an unaffiliated library or Internet café. Because of these hurdles, VPNs are more likely to be used by academic and special libraries, rather than public libraries.

Single Sign-On (SSO)

Single sign-on (SSO) is a form of authentication that does not rely on using or manipulating IP addresses. Instead, SSO uses session information stored as a cookie (piece of data) in a patron's web browser to enable multiple resources and vendors to share a patron's credentials amongst themselves. This means patrons only have to log in once using their institutional username and password, and all the other resources using SSO authentication will grant them access.

You have likely encountered SSO authentication while using a Google product, such as Gmail or Google Docs. Once you have signed into one product—for example, your Gmail account—all the other products, services, and websites provided by or affiliated with Google automatically recognize your browser and, therefore, you. This includes things like YouTube, Blogger, Google Maps, and Google Scholar along with any third-party website using Google's API (i.e., services like InstaCart, GrubHub, or Booking.com, which offer to sign you in via Facebook or Google rather than requiring you to make a dedicated account).

From a patron perspective, using an SSO for library authentication will not feel much different from using a proxy, with one exception. After reaching an e-resource but before they are asked to type in their credentials, patrons will be prompted to choose their institution from a drop-down menu. The drop-down menu (called a WAYF or "Where Are You From?") is necessary to identify which institution to query for the credentials. Fortunately, this is a small hurdle for users to overcome.

In general, SSOs are considered more secure than a proxy and provide a similar experience to the patron. They also allow a patron to navigate to the resource from anywhere, even Google, and still be able to log in. However, SSOs put a larger burden on vendors. Unlike the other authentication methods discussed so far, SSOs require vendors to install and configure additional software on their servers. This software is necessary for the hosting platform to communicate with the institution to verify credentials. Since not all vendors have the ability or willingness to do so, SSOs often need to be paired with other authentication methods to provide access. Examples of SSOs include:

- OpenAthens
- Shibboleth

Due to the strengths and limitations of each, many libraries employ multiple methods for authenticating their patrons. While it is unlikely the e-resources librarian will be responsible for administering authentication at your institution, you will need to know which authentication methods your library employs in order to make effective acquisitions, licensing, collection development, and workflow decisions. We recommend speaking with your library's IT department to get acquainted with these systems.

Knowledge Management Systems

The final concept you need to master is that of knowledge management systems. Libraries must contend with an enormous amount of information surrounding their available resources, both print and electronic. To keep organized and make resources discoverable to their patrons, librarians rely on intricate knowledge management systems. In the following pages, we discuss the kinds of management systems you may encounter as an e-resources librarian. Due to the complexity of knowledge management systems, we can only cover each one in brief, but we highly recommend you invest the time for additional exploration and training for these systems to fully understand their functionality. We have provided some resources to get you started in the "Additional Readings and Resources" section at the end of this chapter.

Integrated Library Systems

Integrated library systems (ILSs) are used by librarians to manage activities surrounding acquiring and loaning materials, such as tracking the ordering, invoicing, and circulation of materials. ILSs are generally broken into different modules, depending on the activity type. For instance, there may be a circulation module for managing patron records and loans, an acquisitions module for tracking invoices and funds spent, and a cataloging module for making and managing the MARC records of library-held items. It is the cataloging module which powers the OPAC.

Just as with OPACs, ILSs function best in the physical print world. Their modules are specifically geared to track the purchase and circulation of physical materials, although efforts have been made over the years to integrate more features for managing e-resources. For this reason, many libraries, especially academic libraries, prefer to use other management systems for their e-resource collections. Examples of ILSs include:

- Innovative Interface's Sierra
- SirsiDynix's Symphony
- ProQuest/Ex Libris's Voyager

Knowledge Bases

Before we delve into the other knowledge management systems, we must first discuss knowledge bases. Knowledge bases are centralized databases that contain metadata describing specific instances of e-resources that a library can acquire. Unlike the MARC records used in an OPAC, which describe the overarching work, knowledge bases collect information about the specific version of a work that is made available through a vendor or platform (Wilson, 2016). This would include not just basic bibliographic information (title, author, publisher, etc.) but also information about the resource's platform, vendor, coverage dates, and access model, including which packages or collections it appears in.

Since a knowledge base is comprised of the same vendor-supplied metadata which is ingested into a discovery layer's centralized index, it suffers from the same issues with metadata inconsistency. Knowledge base vendors try to mitigate these issues by formatting and normalizing the metadata before pushing it out for discovery by patrons. They also

get the metadata delivered on a regular schedule in order to keep it up-to-date. However, even with these precautions, incorrect metadata often slips through. As a result, knowledge bases are also updated by the power of the collective as librarians insert themselves into the data maintenance process "by reporting changes and corrections to the data back to their knowledge base vendor or the content provider itself" (Wilson, 2016: 9).

Knowledge bases are used to power a variety of e-resource management and access tools. The primary purpose of the knowledge base is holdings management, allowing librarians to track which e-resources they have with certain vendors. This, in turn, supports the article-level links patrons encounter in a library's discovery layer and the title-level links in a library's A–Z lists. Around the bones of this basic functionality, management tools such as ERMs and LSPs have sprouted up, offering value-added services such as license management, account information storage, usage analysis, and alerts for renewals. We talk more about this in the next few pages. Examples of knowledge base vendors:

- EBSCO
- Global Open Knowledgebase (GOKb)
- ProQuest/Ex Libris
- OCLC

Link Resolvers

Knowledge bases and link resolvers originated at around the same time in the late 1990s and early 2000s. At the time, the library community was grappling with how to create article-level links to content when that content was available through multiple vendor platforms, each with their own unique website architecture. Instead of maintaining a database of static hyperlinks to each instance of the content, Herbert Van de Sompel and Patrick Hochstenbach proposed a tool for dynamic linking, which they called SFX. The SFX tool was designed to create links to unique content "on the fly" by taking the content's citation information, alongside information about the platform and its website architecture, and mapping it to a standard linking code format called OpenURL (Van de Sompel and Hochstenbach, 1999). SFX was acquired by Ex Libris in 2000 and released as the first commercial link resolver.

Today, link resolvers are either stand-alone tools with their own knowledge bases or they are encompassed by and connected to the knowledge bases of larger knowledge management systems, such as ERMs and LSPs. Traditional OpenURL resolving is still prevalent within discovery layers and elsewhere, but it is quickly being replaced by new developments in direct linking technology. Direct linking technology "leverages the metadata in the unified index to create links, rather than constructing them based on information in the source citation" (Wilson, 2016: 7). Direct linking allows a patron to be taken directly to the full text of an article from a discovery layer search result and requires only one click rather than the several clicks needed with the traditional OpenURL link structure.

Electronic Resource Management (ERM) Systems

Just as ILSs were built to manage print resources and their associated data, electronic resource management (ERM) systems sprang up in response to the need to effectively track and manage e-resources. E-resources inherently have a large amount of associated data, including:

- Pricing and usage statistic information
- Licensing terms
- Various contacts for technical support, invoicing, and licensing
- Usernames/passwords for administrative or usage sites
- Complicated renewal information for packages or components
- Thousands of individual subscription titles under one package or umbrella renewal

Built on MARC records and with a print orientation, ILSs were either unable to store this meaningful data or could not make it easily retrievable or usable by librarians. ERMs, on the other hand, are built around knowledge bases of e-resources metadata and allow librarians to access required information quickly. Also, depending on the system, ERMs can provide additional functionality, such as:

- Automated usage statistic retrieval (via SUSHI protocol)
- Alerts for licensing and renewal workflows
- Checklists for workflows
- Usage and cost analysis, including cost per use (CPU) reports
- Overlap analysis to compare packages or collections
- Advanced, multilevel note recording capabilities

ERMs, like link resolvers, can be purchased as either a stand-alone tool or as part of a larger knowledge management system. However, the ERM industry is consolidating more and more in recent years, with fewer companies producing stand-alone ERMs. Instead, they are opting to integrate ERM functionality into larger platforms, such as LSPs. Examples of ERMs:

- CORAL (open source)
- 360 Resource Manager (commercial)

Library Services Platform (LSP)

In response to the increasing prevalence of electronic formats in library collections, some companies have begun developing knowledge management systems which unite the functionalities of the ILS, knowledge base, link resolver, and ERM. These products, called library services platforms, or LSPs, are intended to be the successor to the ILS and act as a centralized system for managing all library materials, both print and electronic. Examples of LSPs:

- ProQuest/Ex Libris's Alma
- OCLC's WorldShare Management Service
- SirsiDynix's BLUEcloud

Key Points

- There are four main ways library patrons access resources: the OPAC (library catalog), the discovery system, A–Z lists, and research guides.

- Libraries employ a variety of methods to authenticate patrons, including username/password, IP address, proxy server, virtual private network (VPN), and single sign-on (SSO).
- Integrated library systems (ILSs) were built for print resources, and, therefore, do not manage e-resources well. In response, libraries use other knowledge management systems to track their e-resource holdings.
- Knowledge bases are centralized databases that contain metadata describing specific instances of e-resources that a library can acquire. They are the engine which drives many e-resource knowledge management systems.

References

Asher, Andrew D., Lynda M. Duke, and Suzanne Wilson. "Paths of Discovery: Comparing the Search Effectiveness of EBSCO Discovery Service, Summon, Google Scholar, and Conventional Library Resources." *College & Research Libraries* 74, no. 5 (2013): 464–88.

Breeding, Marshall. "The Future of Library Resource Discovery: A White Paper Commissioned by the NISO Discovery to Delivery (D2D) Topic Committee." Last modified February 2015. http://www.niso.org/apps/group_public/download.php/14487/future_library_resource_discovery.pdf.

———. "Library Systems Report 2015: Operationalizing Innovation." *American Libraries* 46, no. 5 (2015b): 28–41.

———. "Library Systems Report 2017: Competing Visions for Technology, Openness, and Workflow." *American Libraries* 48, no. 5 (May 2017): 22–35. https://americanlibrariesmagazine.org/2017/05/01/library-systems-report-2017/.

Eddy, Max. "The Best VPN Services of 2017." *PC Magazine*. Last modified July 12, 2017. http://www.pcmag.com/article2/0,2817,2403388,00.asp.

Hofmann, Melissa, and Sharon Q. Yang. "'Discovering' What's Changed: A Revisit of the OPACs of 260 Academic Libraries." *Library Hi Tech* 30, no. 2 (June 2012): 253–74.

Lundrigan, Courtney, Kevin Manuel, and May Yan. "'Pretty Rad': Explorations in User Satisfaction with a Discovery Layer at Ryerson University." *College & Research Libraries* 76, no. 1 (January 2015): 43–62.

Moore, Gordon E. "Cramming More Components onto Integrated Circuits." Reprinted from *Electronics* 38, no. 8 (April 19, 1965): 114, *IEEE Solid-State Circuits Society Newsletter* 20, no. 3 (September 2006): 33–35.

Spezi, Valérie, Claire Creaser, Ann O'Brien, and Angela Conyers. "Impact of Library Discovery Technologies: A Report for UKSG." Last modified December 16, 2013. https://www.uksg.org/sites/uksg.org/files/UKSG_final_report_16_12_13_by_LISU.pdf.

Von de Sompel, Herbert, and Patrick Hochstenbach. "Reference Linking in a Hybrid Library Environment, Part 1: Frameworks for Linking." *D-Lib Magazine* 5, no. 4 (April 1999). www.dlib.org/dlib/ april99/van_de_sompel/04van_de_sompel-pt1.html.

Wilson, Kristen. "Chapter 2: Building a Knowledge Base." *Library Technology Reports* 52, no. 6 (2016): 9–12. https://journals.ala.org/index.php/ltr/article/view/6050.

Additional Readings and Resources

Breeding, Marshall. "Knowledge Base and Link Resolver Study: General Findings." Last modified May 1, 2012. http://www.kb.se/dokument/knowledgebase_linkresolver_study.pdf.

———. "Library Services Platforms: A Maturing Genre of Products." *Library Technology Reports* 51, no. 4 (May/June 2015). https://journals.ala.org/ltr/issue/view/509.

Chisare, Cyndy, Jody Condit Fagan, David Gaines, and Michael Trocchia. "Selecting Link Resolver and Knowledge Base Software: Implications of Interoperability." *Journal of Electronic Resources Librarianship* 29, no. 2 (2017): 93–106.

Cowan, Sandra, and Chris Bulock. "Open Access in the World of Scholarly Journals: Creation and Discovery." *Serials Librarian* 72, issues 1–4 (2017): 194–200.

Dahlen, Sarah P. C., and Kathleen Hanson. "Preference vs. Authority: A Comparison of Student Searching in a Subject-Specific Indexing and Abstracting Database and a Customized Discovery Layer." *College & Research Libraries* 78, no. 7 (2017): 878–97.

Hoeppner, Athena. "The Ins and Outs of Evaluating Web-Scale Discovery Services." *Computers in Libraries* 32, no. 3 (April 2012). http://www.infotoday.com/cilmag/apr12/Hoeppner-Web-Scale-Discovery-Services.shtml.

———. "Database Lists A to Z: A Practitioner's Tips and Caveats for Managing Database Lists." *Serials Librarian* 73, no. 1 (2017): 27–43.

Imre, Andrea, Steve Oberg, Scott Vieira, and Lori Duggan. "The Future Is Flexible, Extensible, and Community-Based: Stories of Successful Electronic Resources Management." *Serials Librarian* 70, issues 1–4 (2016): 204–10.

Jantzi, Leanna, Jennifer Richard, and Sandra Wong. "Managing Discovery and Linking Services." *Serials Librarian* 70, issues 1–4 (2016): 184–97.

Koury, Regina, and Charissa Brammer. "Managing Content in EBSCO Discovery Service: Action Guide for Surviving and Thriving." *Serials Librarian* 72, issues 1–4 (2017): 83–86.

Nichols, Aaron F., Emily Crist, Graham Sherriff, and Megan Allison. "What Does It Take to Make Discovery a Success? A Survey of Discovery Tool Adoption, Instruction, and Evaluation among Academic Libraries." *Journal of Web Librarianship* 11, no. 2 (2017): 85–104.

Pesch, Oliver. "Improving OpenURL Linking." *Serials Librarian* 63, no. 2 (2012): 135–45.

van Ballegooie, Marlene. "Knowledgebases: The Cornerstone of E-Resource Management and Access." *Serials Review* 40, no. 4 (2014): 259–66.

Wilson, Kristen. "Introducing the Next Generation of Library Management Systems." *Serials Review* 38, no. 2 (2012): 110–23.

CHAPTER 3

Working with Vendors

IN THIS CHAPTER

- ▷ Comparing the different types of vendors
- ▷ Explaining how to interact with vendors
- ▷ Creating a vendor contact spreadsheet
- ▷ Exploring additional services and features vendors provide

E-RESOURCES LIBRARIANS WORK EXTENSIVELY with vendors throughout their careers. Establishing good working relationships with these vendors is, therefore, essential for success. In this chapter, we explore the four main types of vendors, how to make initial contact with these vendors, and what these vendors can do to help you meet your library's needs.

Domestic and International Vendors

Most major vendors have offices in both North America and Europe. However, vendors for plenty of popular resources only have offices within their country of origin. Dealing with international vendors is not difficult. Be aware of the following for international vendors:

- Official communications may come in languages which you do not speak. You may need to use a translation tool, like Google Translate, to assist you with communication.
- Keep in mind the time difference and national holidays of the international vendor when contacting them.
- Request invoices in your preferred format, for example month-day-year, to avoid accounting issues.

For both domestic and international vendors, tax-exempt organizations, such as public libraries, state schools, and other nonprofit organizations, will need to supply a tax exemption form upon request. If your organization is tax-exempt, make sure that tax is not listed on your invoices. Some vendors habitually require you to resubmit your tax exempt form annually, usually initiated by you requesting that they remove the tax listed on your invoice.

Types of Vendors

Individual Publishers

Library vendors are generally divided into four major categories: individual publishers, subscription agents, content aggregators, and consortia. Orders placed directly with the resource's publisher are known as direct orders. E-book and database resources are usually direct orders, but there can be exceptions. Occasionally, e-journal subscriptions are also direct orders; however, e-journal orders are more frequently handled by subscription agents or content aggregators, which we cover next.

Individual publishers vary in size and available resources, which tends to correlate to the quality and number of services they provide. Large publishers often have more fully developed websites when compared to their smaller counterparts, offering things like administrative and usage statistics portals. They are also more likely to provide advanced authentication methods, such as IP recognition or SSO, and have a dedicated customer service representative assigned to your account.

Subscription Agents

Subscription agents, often referred to as sub-agents, act as intermediaries between publishers and libraries, helping the library to manage its many individual and package subscriptions. This means, rather than a library having to issue individual checks to multiple vendors for thousands of subscriptions, a sub-agent can act on the library's behalf, initiating subscriptions, soliciting invoices, and handling payments. The library needs only pay the sub-agent's consolidated invoice when it arrives. Example sub-agent companies include EBSCO, Harrassowitz, and WT Cox.

Sub-agents charge a fee for their service, typically based on the dollar amount of overall business a library carries with them. Service fees can be negotiated and are either applied as a single rate for all the library's subscriptions or at different rates depending upon the subscription package. Your sub-agent will likely assign your library a dedicated customer service representative with whom you will conduct day-to-day business, including negotiating service fees and handling subscription issues. Your representative will likely want to set up semiannual, in-person meetings to check in with you. This is your opportunity to provide both positive and negative feedback regarding any issues you may have been experiencing.

In addition to your customer service representative, you will have access to an online administrative portal for your sub-agent account. Here you can view information about your subscriptions, such as cost, authentication methods, and licensing terms, as well as find out more details about potential subscriptions. However, be sure to keep your own records of your sub-agent subscriptions, whether paper or electronic. Some sub-agent ad-

min portals only maintain the past five years of data, although this varies by subscription type. Another reason libraries prefer to handle their subscriptions via sub-agents is that a sub-agent can send automated e-mail alerts when subscription renewals reach above a predetermined price threshold, prompting a decision of whether to maintain or cancel the subscription.

Some libraries choose to conduct business with multiple sub-agents. The bankruptcy of the prominent and seemingly well-established SWETS sub-agent in the fall of 2014 shocked the library community. There were no warning signs that the company was in financial trouble, and many libraries, especially those who had maintained most or all of their subscriptions with SWETS, suffered financial losses (Mulhere, 2015). As a result, some libraries have strategically decided to not keep all of their subscriptions in one sub-agent's basket. Other reasons for dealing with multiple sub-agents could include: a sub-agent's expertise, such as with obtaining international print volumes; better subscription metadata in a sub-agent's admin portal; or a sub-agent offering better package service fee discounts when compared to its competitors.

Content Aggregators

Outside of acquiring e-journal content from a publisher or sub-agent, there are many content aggregators, such as EBSCO, ProQuest, and Gale, who provide full-text e-journal access within their aggregator databases. An aggregator is "a bibliographic service that provides online access to the digital full-text of periodicals published by different publishers" (Reitz, 2013a). Keep in mind the full-text content within these databases can vary by coverage date, images are not always included despite appearing in their print versions, and the journals themselves fall in and out of these databases fairly frequently. Since the inclusion of a journal within an aggregator database ultimately depends on the publisher contract, how long the journal will remain within the database and what coverage dates will be included will vary journal to journal. In this way, it is similar to the Netflix model of adding and removing content monthly.

Another negative aspect of content aggregators is embargoes. An embargo is "the period during which the articles published in a periodical are not available in online full-text from a journal aggregator, usually the most recent one to three years" (Reitz, 2013b). This means that for some titles the full-text for the most current years—which usually contain the most sought-after content—will not be available for immediate access. The library must either invest in a subscription from the publisher or else rely upon services like an interlibrary loan to fulfill requests for this missing content.

The primary function of aggregator databases is debated (Geckle and Mangrum, 2014). Overall, they are viewed as either a simple way to obtain access to a curated subject collection or as a potential replacement for individual e-journal subscriptions. There are many caveats to be taken into account when considering cancelling individual e-journal subscriptions based on their full-text availability within an aggregator database:

Embargoes: patrons will need to request the content included in the embargo via ILL
Images or graphics: may or may not be included within an aggregator database
Availability of title: titles regularly fall in and out of aggregator databases
Other content: may only be available through a subscription at the publisher's site, such as pre-publication articles

Mariyam Thohira, Mary Beth Chambers, and Nancy Sprague present an excellent case study analyzing content within aggregator databases with the intent of cancelling individual subscriptions based upon available full-text coverage. When the authors conducted their original analysis in 1999 and in 2010, they analyzed major EBSCOhost and Gale aggregator databases. They later compared and contrasted the two projects to see what had changed in the past ten years. Ultimately, with findings from both their 1999 and 2010 studies, the authors recommend that aggregator access is not a suitable replacement for a full-text subscription. They also note that due to budget constraints a library may have to decide if aggregator access to low-use titles is adequate, even though there may be a risk of loss in the future (Thohira, Chambers, and Sprague, 2010).

Consortia

Many libraries acquire their e-resources via a library consortium. Joan Reitz defines a consortium as

> an association of independent libraries and/or library systems established by formal agreement, usually for the purpose of resource sharing. Membership may be restricted to a specific geographic region, type of library (public, academic, special), or subject specialization. In the United States, two leading examples are the Orbis Cascade Alliance, serving member colleges, universities, and community colleges in Oregon and Washington, and OhioLINK, serving the college and university libraries of Ohio and the Ohio State Library.

Some consortia exist purely to offer pricing discounts and have few restrictions on membership. The source of consortial operations funds can vary greatly and can include "governmental, private, or endowed funding, and they may have an annual dues or percentage model" (Feick, McKee, and Seamans, 2015: 89).

Libraries have the incentive to participate in consortia given that consortia can often negotiate better pricing or licensing terms for a resource than a library could by itself. Some vendors offer consortial discounts because it can lower their operating cost and increase their adoption in the resource market. Resource pricing for individual libraries within a consortium either can depend upon factors such as an institution's size or may be evenly distributed among consortium members. This pricing can also be influenced by factors such as historical spending and previous licenses (Feick, McKee, and Seamans, 2015). Although consortia are usually actively looking for additional resources to bring under their contract umbrella, don't be afraid to inquire or suggest new resources to your consortium. The more libraries that express interest in a particular resource, the more likely it is the consortium will prioritize licensing that resource.

Initial Contact

When first starting out in your position, you will want to begin by learning your resources and the vendors who provide them. This includes establishing contact with your vendors to introduce yourself. With your library buying from possibly hundreds of vendors, it can be difficult to know which vendors you should contact first and which require little, if any, introduction. In general, you should start by introducing yourself to your biggest vendors,

such as your sub-agent, consortia, or vendors who have assigned a dedicated customer representative. Vendors who rely on a centralized, one-size-fits-all customer service approach do not necessarily need an introductory e-mail.

Beyond this, if your renewals and other services needs are currently met, you do not need to immediately reach out to your vendors. Hopefully, your predecessor's phone has been forwarded to your number, and likewise, the person's e-mail is probably defunct. Should vendors truly need to be in touch, they will track you down. Here are our recommendations for making initial contact with your vendors:

1. Proactively introduce yourself to your subscription agent, any consortia in which your library participates, and other major vendors.
2. Next, focus on the vendors for which you have direct orders. You only need to contact them if you have an immediate need.
3. When you e-mail to introduce yourself, be sure to:
   - include all of your contact information
   - mention if you are replacing someone or if your position is completely new
   - include any information, such as account numbers, with which the vendor can identify your account
4. Refer to the "Vendor Information to Gather Checklist" in the next section. It highlights some items you may also wish to inquire about.

The majority of the day-to-day contact which you have with your vendors will be either by e-mail or phone. However, depending on what resources and contracts you have, you may or may not have periodic in-person meetings with vendor representatives. Some vendors like to conduct face-to-face meetings, including more informal meetings (e.g., working lunches), to assess if they are meeting your needs, to review and update contract details, and to train staff on resources. Consider the following when setting up an in-person vendor meeting:

- When deciding on a date and time, take into account the schedules of those who need to attend the meeting. Inform your vendor who will be attending.
- Ask your vendors what they will need when they visit, such as a computer, projector, printouts, and so on. If necessary, reserve a room with the right technology needed for a demonstration.
- Provide your vendor with directions to your institution and with parking information prior to the visit.
- Describe your library's entrance and when and where you will meet to escort them to the meeting room.
- Determine ahead of time how your vendor will be able to connect to your institution's or campus's Wi-Fi network.
- Depending on the length of the visit, be prepared to offer your vendor water or coffee.
- While you are escorting your vendor to the meeting room, point out any nearby creature comforts, such as restrooms and vending machines.

One way of building rapport with vendor representatives is to take an interest in their life outside of their jobs. Where appropriate, small talk about where someone is from, how their family is doing, and what hobbies they enjoy can ease transitions during an

in-person visit. These details can be followed up on during future e-mails or phone conversations.

Information to Gather

Whether encountering a vendor for the first time or attempting to fill historical gaps of information, it is a good idea to keep a checklist of information you may need to gather from your vendors:

VENDOR INFORMATION TO GATHER CHECKLIST

- ☐ Vendor address for payment remittance
- ☐ Verify account numbers, if applicable
- ☐ Customer service contacts (name, title, e-mail, phone, website address for form submission, etc.)
  - ◦ Technical support
  - ◦ Licensing
  - ◦ Invoicing
  - ◦ Other
- ☐ Administrative and/or usage statistics website
  - ◦ URLs
  - ◦ How to register/change usernames/passwords
- ☐ Resource renewal date (if unclear)
- ☐ Other subscription/purchase details, such as limited users (if unclear)
- ☐ Title lists for licensed content (where applicable)

We recommend that you keep a spreadsheet of all checklist items that you gather from your different vendors. This vendor contact spreadsheet will frequently be referenced in your day-to-day work and should be stored in a centralized location if it will be accessed by multiple staff or in case of your absence. Maintaining an updated backup copy or enforcing strict edit permissions on the file is also a good idea.

Sample Introductory Scripts

We have included some sample e-mail scripts to get you started when you make initial contact with your vendors. Some overarching recommendations for e-mail communications:

- Include your account or customer number and brief purpose in your e-mail subject line; this helps representatives keep track of multiple customers.
- Within the body of your e-mail message, repeat the customer or account number, and be clear about why you are contacting them. Include applicable resource names, subscription numbers, and unique identifiers, such as ISSNs.
- When contacting a vendor representative for the first time or when using a vendor's generic contact form, be sure to include your institution's name, address, and any other pertinent identifying information in your signature.

From: JONES, SAM
To: Smith, Bob
Subject: ABC Library Renewal – new librarian, Sam Jones
Date: Friday, April 7, 2017 8:22:03 AM

Hello Bob,

I'm Sam Jones, the new E-resources Librarian at ABC Library. I believe you worked previously with my predecessor, Mary Smith. I have some questions about our upcoming renewal and would like to schedule a call sometime to go over them.

Thanks and nice to e-meet you,

Sam Jones
E-resources Librarian
ABC Library
123 Library Road
New York, NY 55555
sjones@abclibrary.edu

Figure 3.1. Example of an introductory e-mail to a vendor

From: JONES, SAM
To: inquiries@XYZresource.com
Subject: ABC Library price quote for XYZ resource
Date: Tuesday, May 16, 2017 10:37:11 AM

Hello,

I'm with ABC Library and we are interested in a price quote for XYZ resource. Our FTE is 20,000. We would also like to make sure that the resource works with EZproxy.

Please let me know if you need any additional information for the price quote,

Thanks!

Sam Jones
E-resources Librarian
ABC Library
123 Library Road
New York, NY 55555
sjones@abclibrary.edu

Figure 3.2. Example of an e-mail asking for a price quote

From: JONES, SAM
To: help@JKLdatabase.com
Subject: Acct#: 55555 Lost access to JKL Database
Date: Thursday, August 31, 2017 4:25:55 PM

Hello,

I'm with ABC Library, our account number is 55555 and our access to JKL Database has been turned off. Proof of payment can be provided if necessary.

Please let me know if you need any additional information to resolve this issue,

Thanks!

Sam Jones
E-resources Librarian
ABC Library
123 Library Road
New York, NY 55555
sjones@abclibrary.edu

Figure 3.3. Example of an e-mail asking about cut online access

From: JONES, SAM
To: Smith, Bob
Subject: Future training visit for ABC Library
Date: Monday, November 20, 2017 9:53:06 AM

Hello Bob,

Happy Monday. Hope you are doing well. When we subscribed to JKL Database you mentioned that a trainer could come visit our library if we were interested. Our reference staff are interested in learning more about the individual user accounts and advanced searching with the indexes. Please let me know what dates/times a trainer would be available to come out. We were thinking about an afternoon session in late February or early March, although we are flexible.

Thanks!

Sam Jones
E-resources Librarian
ABC Library
123 Library Road
New York, NY 55555
sjones@abclibrary.edu

Figure 3.4. Example of an e-mail requesting training for a vendor database

What Vendors Can Do for You

Whether or not you have a dedicated customer service representative with a vendor, most companies are designed to offer services to their library customers beyond the product that the library has subscribed to or purchased. Treat your library vendors as resources and how you would any vendors with whom you do business in your personal life. For instance, if you placed an order in your personal life and upon receiving the product still had questions or concerns about it, you would reach out to the vendor and expect the appropriate level of customer service to meet your need. The same should be true for library vendors, and you should challenge yourself to take full advantage of any existing services. Some sample existing services that a vendor may offer:

Customer service representative: some vendors offer dedicated representatives to meet account needs. It is their job to advocate on behalf of your library to their larger company. Don't be discouraged by a negative interaction with one vendor representative; they struggle in their daily work just as librarians do. However, if your library's service is suffering and you have given your customer service representative enough chances and time to respond to an issue, do reach out to a representative in higher standing or to the company in general. Politely explain the situation, that you have not been able to reach a satisfactory resolution with your customer service representative, and that you would like a fresh set of eyes to go over your issue.

Customer service: without a dedicated representative, many vendors offer excellent customer service via e-mail or phone. Don't be afraid to interact with a representative from an 800 number the same as you would with a dedicated representative.

Training for e-resources: some e-resources are inherently complex and require guided training for librarians to fully learn their functionality and available features. Vendors behind these e-resources know this and will periodically contact you to inquire if any staff at your library are interested in a training session, whether in person or via webinar. Be sure to pass this information on to relevant staff even if they do not initially take the vendor up on the offer. Your staff may want to complete the training at a later date, and your vendors should be more than willing to arrange this.

Training for systems: vendors also offer training for the systems that you or other librarians use in day-to-day work, such as your ILS, discovery layer, ERM, and so on.

Online support centers: these can be a treasure trove of information! From common troubleshooting issues to research guides explaining all the ins and outs of using a particular e-resource, online support centers curate helpful information into one vendor site. Ask your representative or research online to see if the vendor offers a support center so that you can check out their offerings for future reference. Also be sure to mention any relevant material to collection development staff at your library, since some vendors provide free instructional or marketing materials.

Listservs: for the systems which libraries use day in and day out, their vendors usually host a dedicated Listserv for their products. This is most common for ILSs or ERMs.

When interacting with vendors throughout various channels, remember to provide them with feedback on how they can better serve your library and its patrons. You are not the vendor's only customer, and patrons at other libraries will have similar needs to yours. Don't be afraid to ask for what you want or to start a discussion so your vendor can get a better grasp of what you are advocating for. Library–vendor relationships are a two-way

street, with the vendor supplying goods and services in response to the library's financial support. The power of the collective can work wonders when we individually commit to maintaining productive library–vendor relationships.

Vendor Administration Portals

Most major vendors provide online vendor administrative portals (admin portals) to handle and manage subscriptions. An admin portal may include the following functions:

- IP registration
- EZproxy information/setup
- Usage statistics
- Customizable logos or other graphics
- Other branding opportunities or customized displays
- Title lists or other holdings details

Some vendors separate out their usage statistics into a separate website from their admin portal, so you would have two websites with logins to access. Not all vendors offer vendor administrative portals; for example, some vendors only provide usage statistics via e-mail upon request.

Using the vendor contact spreadsheet that we mentioned previously, you should eventually work through your list of vendors and ensure that you are registered with them all. If you have not registered your library's IPs with a vendor, your patrons may not have access to the resource, even if you are annually paying for the resource.

Key Points

- Make it a priority to identify your primary vendors and make initial contact with them. Not only will you need to send them updated contact information, but you will be working with them extensively in the future. Therefore, it is important to establish a good rapport and to foster a healthy give-and-take exchange.
- Your level of interaction with your vendors may vary based on the type of vendor. You may not have a customer service representative.
- Keeping sample scripts at hand for commonly asked questions or common situations is a good method of coping with vendor communication.
- Be sure to stay organized either with a spreadsheet or other tracking method to capture vendor contact information.
- Don't be afraid to ask for what you need and want, as you are also helping your fellow library customers in the process.

References

Feick, Tina, Anne E. McKee, and Marsha N. Seamans. "Rounding Up Those Prices: Do You Know What You Are Paying For?" *Serials Librarian* 68, issues 1–4 (2015): 87–91.

Geckle, Beverly J., and Suzanne Mangrum. "Aggregators: Cornerstone or Annex?" *Serials Librarian* 66, issues 1–4 (2014): 139–45.

Mulhere, Kaitlin. "Journals and Money at Risk." *Inside Higher Ed*. Last modified January 2, 2015. https://www.insidehighered.com/news/2015/01/02/swets-bankruptcy-will-cost-libraries-time-money.

Reitz, Joan M. "Aggregator." *Online Dictionary for Library and Information Science.* Santa Barbara, CA: ABC-CLIO, 2013. http://www.abc-clio.com/ODLIS/searchODLIS.aspx.

———. "Embargo." *Online Dictionary for Library and Information Science.* Santa Barbara, CA: ABC-CLIO, 2013. http://www.abc-clio.com/ODLIS/searchODLIS.aspx.

———. "Consortium." *Online Dictionary for Library and Information Science.* Santa Barbara, CA: ABC-CLIO, 2013. http://www.abc-clio.com/ODLIS/searchODLIS.aspx.

Thohira, Mariyam, Mary Beth Chambers, and Nancy Sprague. "Full-Text Databases: A Case Study Revisited a Decade Later." *Serials Review* 36, no. 3 (2010): 152–60.

Additional Readings and Resources

Bulock, Chris. "Techniques for Tracking Perpetual Access." *Serials Librarian* 68, no. 1–4 (2015): 290–98.

Busby, Lorraine. "Elevating Aggregator Evaluation." *Serials Librarian* 69, no. 2 (2015): 126–32.

Grissom, Andrew R., Steven A. Knowlton, and Rachel Elizabeth Scott. "Notes on Operations: Perpetual Access Information in Serials Holdings Records." *Library Resources & Technical Services* 61, no. 1 (2017): 57–62.

Mering, Margaret. "Preserving Electronic Scholarship for the Future: An Overview of LOCKSS, CLOCKSS, Portico, CHORUS, and the Keepers Registry." *Serials Review* 41, no. 4 (2015): 260–65.

Shapiro, Steven. "Are Aggregators an Endangered Species?" *Journal of Electronic Resources Librarianship* 25, no. 1 (2013): 77–79.

CHAPTER 4

Acquisitions

IN THIS CHAPTER

- ▷ Understanding different types of orders, pricing, content, and access models
- ▷ Working subscription agent and big deal renewals
- ▷ Communicating with library leadership about your spending
- ▷ Creating a renewal calendar
- ▷ Orchestrating workflows for acquiring, maintaining, and cancelling resources
- ▷ Negotiating renewal rates

ACQUISITIONS ENCOMPASSES ALL ASPECTS of acquiring resources for your library, including selecting, ordering, and receiving materials. In 2016, the Publishers Communications Group estimated that North American libraries spent approximately 72 percent of their materials budget on e-resources alone. As publishers and vendors fight for an increasing chunk of libraries' budgets, new, complex purchasing models have evolved, giving rise to a multitude of aquisition and pricing options. It is more important than ever before that e-resources librarians continuously investigate various purchasing models, whether that be bundling or unbundling packages, moving to a patron-driven acquisitions e-book plan, or starting a deposit account for journal articles.

As you go over historical renewals and budgets in your new position, you will begin to recognize different patterns and habits of your predecessors. Especially if you are in a newly created position, you may realize that no one has added or cancelled anything for years. With this in mind, don't be afraid to do something different than your predecessors

regarding acquisitions workflows. The e-resource market and pricing fluctuates so much that it is very likely you have some unrealized savings right under your nose.

In this chapter, we focus on the purchasing models for three types of content: serials, e-books, and databases. We have separated the purchasing models for these content types into their own sections to aid your understanding of the varying workflows which accompany each one. Of course, there is some overlap between the types, and we ask that you remain flexible with our categories.

Pricing Options

Before we dive into the various purchasing models, we wanted to touch upon the kinds of pricing you may encounter. These pricing options can occur regardless of content type, so it is a good idea to familiarize yourself with them. Some of these pricing options are open to negotiation, while others are more fixed. However, as always, it never hurts to ask vendors if they are open to discussing pricing.

Fixed (flat) rate: the resource costs the same for all purchasers/subscribers, regardless of institutional size, number of users, and so on.

Full-time equivalent (FTE): tiered pricing based on the number of full-time students enrolled at an institution. It is a very common pricing model for both e-journals and databases sold to academic institutions. If you do not already know your institution's FTE, your registrar should be able to provide this number, or you may be able to find it in a factbook or a similar publication. Report to your vendor the most recent number available; it is common for the statistic to be published one or two years behind the current academic year. Vendors will contact you for an updated number as needed.

Carnegie classification: a less common, tiered pricing model for academic institutions. Your registrar may also be able to provide this information. If not, it is fairly easy to estimate your classification using the Carnegie website (see references for the URL) and your most recent FTE number. Contact library leadership if you have any concerns. Since these classifications are used elsewhere on your campus, it is good for everyone to be on the same page with what they are reporting, and leadership can help point you to the right channels to begin discussions on your campus.

Academic program size or population served: similar to FTE pricing, resources are priced according to program size or the estimated number of potential users (for example, a resource for a nursing program of 1,200 students). Work with the academic department in question to determine program size or else contact the registrar or other campus bodies for assistance. If you know for a fact that less than the entire program size will use the resource—a single class of thirty-five students, for example—ask vendors if they would be willing to provide pricing for the single class size.

Simultaneous or concurrent users (seat limits): many databases are priced per simultaneous user or seat. For example, if you subscribe annually with two seats to a resource, only two patrons can access the resource at one time. Patrons who attempt to use the resource when the seats are full will receive an error message and be denied access to the resource.

Purchase plus continuing access fee: for some resources, you must pay an initial purchase price and an annual, continuing access fee. Access fees are generally to support website maintenance, while the purchase price is for the actual content. If your library is unable to pay the continuing access fee in future years, your library will lose access to the

content. Generally, the access fee is a very small percentage and can be negotiated like renewal rates.

Market price: outside of FTE pricing, this is a very common model for individual e-journal subscriptions. Prices are obtained by contacting the vendor directly for a quote; however, the price is subject to change. For example, if you request a price quote in February for an e-journal but wait until October to subscribe, you will receive an updated quote from the vendor, and the price will have likely increased.

Vendor-defined institution size: similar to Carnegie pricing, some vendors will self-define what they deem to be small, medium, or large institutions. Pricing is then determined based on these classifications.

Business (balance) carried with a vendor: although this pricing model is less common overall, some vendors do take into account the amount of existing business you carry through them when considering pricing for any additional subscriptions. For example, vendors may offer a discounted rate for a new $20,000 database subscription, given that you already carry $100,000 worth of business (other subscriptions) with them.

Serials

Materials handled by e-resources librarians are commonly separated into two general categories: continuations and firm orders. Different libraries may use other, interchangeable terms to refer to continuations and firm orders, including serials or standing orders for continuations, and monographs or one-time purchases for firm orders. In this book, we shall use the term *serials* to refer to any material that is acquired sequentially (e.g., journals, magazines, annuals, society reports, proceedings, etc.) and *firm orders* to refer to any material which is acquired at a singular time (e.g., books, e-books, etc.). Although in some libraries the e-resources librarian is not responsible for both serial and firm orders, it is still very important to understand the difference between the two types of materials. Serials are unique in that they generate recurring costs, which are often annual, whereas firm orders are usually one-time purchases with no additional costs incurred.

Print Serials

A print subscription provides physical copies of a resource according to its publication frequency, whether that is monthly, quarterly, or annually. While you may not be in charge of print serials at your library, do keep them in mind as an alternative to online-only subscriptions. Although it would depend on patron needs and other factors, in some cases it is both cheaper and acceptable to substitute a print subscription for an exorbitantly priced online subscription.

Table 4.1. Terms Used to Refer to Serials and Firm Orders

TYPE OF MATERIAL	TERMS	EXAMPLES
Serials	continuations, standing orders, ongoing resources, multivolume resources	magazines, newspapers, annuals, society reports, standards, proceedings, transactions
Firm Orders	one-time purchases, monographs	books, e-books, video recordings

For instance, consider the potential savings of print balanced against the inconvenience for a patron, who would be required to physically visit the library to use the resource. Additionally, if your library has a robust and time-effective document delivery service, where articles from print journals are scanned and e-mailed to patrons upon request, an online subscription may not be necessary. Physical space limitations and binding costs should also be considered.

Online Serials

Online serials subscriptions vary greatly from one vendor to the next in what content is offered. The following subsections cover different access and subscription models.

Open Access Serials

E-journals and articles which are freely available online are referred to as open access. Open access journals and articles have become popular in academia over the past decade in response to rapid increases in serials pricing. Some helpful definitions include:

Gold open access journal: all content of the journal is freely available.

Green open access (self-archiving) articles: authors deposit their article into institutional repositories, which are then made freely available.

Hybrid open access journal: a subscription journal in which only some of the articles are open access.

Author Processing Charge (APC): a publication fee which is sometimes charged to authors by the publisher "of open access and hybrid journals to meet the costs of the publication process" (Research Information Network CIC, 2012).

All Access

Some standard subscriptions provide access to all of the resource's content which is available online. This is less common than current access or archive access, which we cover next.

Current Access (Frontfile)

Some publishers like to separate their subscription content into current access and archival access to increase the number of pricing options. A current e-journal subscription, sometimes referred to as the frontfile, typically gives access to the most recent content of a journal. With exceptions, the years of access are likely to be around "1997–present."

Archival Access (Backfile)

If a publisher offers archival or backfile access to a title, there are typically three different pricing models. Typical coverage is from the first volume to the beginning of the current subscription. Many publishers only offer backfile access in the form of a large package of titles.

Backfile subscription: As with normal subscriptions, you pay an annual fee for access to a range of content years.

Additional fee for backfile access: If you already have a frontfile subscription, the backfile may be available for a small additional fee.

Backfile package: These packages are typically very expensive because you gain perpetual access to a great number of titles.

Rolling Access

Rolling journal access is the most confusing of all. With this model, you will both gain and lose access to content each year, which requires you to update your holdings accordingly. Generally, rolling access provides access to a set number of years plus the current year. For example:

2018 rolling subscription (access to five years of content): 2013–2018

2019 rolling subscription (access to five years of content): 2014–2019

In this example, this means that you would remove your 2013 access from your holdings upon gaining access to 2019 content.

WHY PERPETUAL ACCESS?

There are several points of consideration for whether or not it is worthwhile to obtain perpetual access to e-journal content, especially if your library also owns print volumes of the journal:

- Your institution's existing print holdings and capacity for future storage
- Your institution's capabilities for document delivery, in which you provide scans of print materials upon request to patrons
- ILL costs for content you do not own, including copyright fees
- Maintaining e-journal perpetual access, including documentation, annual updates, and verification of access

Many institutions have physical collections which are running out of storage space, even those with off-site storage. Bound journal volumes take up considerable space, and ensuring their retention is also difficult if leadership or institutional goals change. However, depending on your institution's ability to store print holdings, it may be worth considering if print accessed through document delivery is a better solution for perpetual access. It is also worth considering the absolute bare-bones cost of a print subscription plus binding plus storage plus staff in lieu of paying for an exorbitant e-journal subscription. This may not be worth considering for the most expensive e-journal subscriptions, as their print subscription cost is usually 85 percent of the cost of the electronic subscription. Also, a considerable amount of staff is required to operate a document delivery service that has an output with acceptable delivery times. Some institutions with less staff and some excess dollars choose to simply rely on ILL versus document delivery.

Perpetual Access

Perpetual access simply means that you retain archival access to the content you paid for forever. Without perpetual access, you only have access to the resource while you are subscribed. Once you stop subscribing to the resource, you lose all access to the content. Not all subscriptions offer perpetual access, so be sure to contact the vendor if it is not obvious up front whether or not a subscription offers perpetual access.

Print Plus Online Serials Subscriptions

A print plus online (P+O) subscription provides access to both the print and online content of a journal. Pricing can vary greatly. While print plus online subscriptions are self-explanatory, take note:

- In some instances, a vendor may only provide a print plus online subscription option. If your library does not want the print copy, be sure to inform the print journals staff so they can update their receiving records to "discard upon arrival."
- The online access provided by a print plus online subscription may not support IP, EZproxy, or other major authentication methods. Instead, they are likely to authenticate via username and password, which is intended for a single user.

Username and Password Online Access Subscriptions

The majority of online subscriptions support IP authentication, EZproxy, and other major authentication methods. However, you will need to verify this with smaller publishers and vendors. The information we provide here applies to all resources which authenticate via username and password, although username and password (U/P) subscriptions are most common for individual serial titles.

When in doubt, you should reach out to vendors to ask their permission to include your subscription on a password-protected web page where patrons must input their institutional credentials to view the login information. Vendors may decline to allow this if they are unaware of market trends and did not mean for their resource to be accessed by multiple patrons with a single login. If you receive permission, work with IT staff to create and maintain a username/password web page. Also, be sure to ask IT staff for the appropriate editing permissions so you can update the web page in the future.

If you primarily place your orders through a sub-agent, be aware that U/P subscriptions frequently appear in subscription results lists within sub-agent admin portals. Outside of the academic market, U/P subscriptions meant for individuals are very common, especially for popular reading titles. Therefore, online access for many P+O subscriptions with sub-agents is authenticated via username and password.

The online subscription records within your sub-agent's admin portal generally include information about what authentication method is used for the online subscription. This information is often incorrect. When in doubt, contact the vendor directly to verify the subscription's authentication method, and be sure to update your sub-agent with the correct information as necessary.

Packages

Rather than purchasing individual subscriptions, a library can invest in packages, which bundle subscriptions in various ways.

Small or Large

Packages come in many different shapes and sizes. Smaller packages, sometimes referred to as bundles or combination packages, commonly combine two or three titles into one subscription fee. Large packages, however, may include not only e-journal content but also e-book and other e-content. Here are some common large-package models:

E-journal subject collections: a publisher may bundle e-journal titles together by discipline.

Standard package: a publisher offers all subscribers access to the exact same content.

All-inclusive package: a publisher may bundle all of its e-journals into a single, large package. If the publisher offers one hundred e-journals in the package, for example, a library may get substantial savings by moving its sixty individual subscriptions to the package model.

Customizable package: sometimes a publisher will allow the library to pick any forty titles à la carte to get a package rate discount.

Static or Dynamic

Packages can either be static or dynamic. Generally, dynamic packages are updated to include new content as time goes on. For example, you subscribe to a vendor's Education Journals package that includes twenty titles. In the forthcoming years, more titles may be added to the package, and your subscription rate may increase in correlation with the additional content. A static package, on the other hand, would never gain the additional titles. So, if your library subscribed to the Education Journals package in 2012, you would not gain the titles published in 2013 and beyond, despite them being added to the package for new subscribers. To catch up on content for a static package from 2013 to the present, a vendor will often offer a rate that represents a portion of the annual subscription fee for a library. If static-package subscriptions began before you started working at your library, you might need to call the vendor to verify what years you have access to.

Big Deals

Big deals are a specific type of subscription package that has garnered a lot of attention, both positive and negative, over the past decade. With a big deal package, your library gains access to all of a publisher's e-journal titles, including perpetual access to some—but not all—of those titles. Examples of publishers who offer big deal packages are Elsevier, Springer, Wiley, Taylor & Francis, Sage, Emerald, American Chemical Society (ACS), Oxford University Press (OUP), and Cambridge University Press (CUP) (Bergstrom et al., 2014).

Due to their expansive nature, big deal packages will likely represent a large chunk of your library's collection budget. Therefore, it is important to thoroughly understand how big deal packages work. The main components of most big deals are:

- Subscription titles, for which a library pays extra fees to have perpetual access; a library can pick and choose which titles are subscription titles; once these subscription fees begin, they are covered by a cancellation allowance.
- Access-only titles, for which the library has access but not perpetual access; a library maintains access to these titles only for the life of the license.

- Cancellation allowance, which is typically a percentage of the subscription titles' fees and applicable for the life of the license; a cancellation allowance can be used to cease paying for perpetual access to titles, which moves said titles to access only.
- Swap allowance, typically a percentage of subscription titles' fees and applicable for the life of the license; a swap allowance is used to swap an existing subscription title for an access-only title, which then becomes a subscription title.
- Platform fees, to pay for the hosting platform.
- Other license fees.

Big deal packages do seemingly offer a discount on content when compared to list prices. Theodore Bergstrom et al. estimate that while "it would cost about $3.1 million at 2009 à la carte prices to buy all of the journals in Elsevier's 'Freedom Collection,' the average Research I university paid roughly $1.2 million, or 40 percent of the summed title-by-title prices, for access to the Freedom Collection." Historically, the initial pricing for big deal packages was based on the amount of the library's existing print subscriptions in addition to a 5 to 15 percent increase to acquire online access to all of the publisher's journals. Although initially attractive for the comprehensive online access that they provided, big deal packages are increasingly unavailable due to rising costs. As Bergstrom et al. state, "a bundle whose price increased by 5.5 percent per year would have doubled its price between 1999 and 2012" (Bergstrom et al. 2014: 9428).

Additionally, limited cancellation allowances for subscription titles prevent the overall cost of the package from being reduced in the future. Therefore, it is difficult for libraries to significantly reduce the cost of their big deal package unless they cancel the entire big deal and resume paying list price for fewer titles. Also, not all big deal packages are comprehensive. Your library may have an existing license that does not include coverage of all of a publisher's journals.

Big Deal Renewals

When updating or working your big deal package renewal, there are a few standard license options:

- With a cancellation allowance, you may be able to cancel some subscription titles.
- With a swap allowance, you may be able to swap some subscription titles for access-only titles of equal value (which in turn become subscription titles).
- If your library's big deal is not comprehensive, typically adding content is not an issue. However, keep your cancellation allowance in mind when considering how much cushion you would have for cancelling subscriptions in the future.

Ideally, you would edit your renewal to maintain subscription titles with high usage and reduce the number of subscription titles with low or zero usage. As we will discuss later in Chapter 8, you should also not exclusively rely on quantitative data when making renewal decisions. Usage may vary from year to year, and the preceding year's usage is not always an indicator of the succeeding year's usage. Rather than analyze a single year's usage, it is better to get an average of the past two to five years. Also, ask your collection development staff for qualitative input. They will be able to identify journals with little to no usage but for which you should retain perpetual access, given their importance to their discipline.

Use caution when making swaps or cancellations for subscription titles. If you frequently cancel or swap subscription titles due to sporadic usage, you may end up with titles with intermittent perpetual access: a year here, a year there, a span of two to three years, or even every other year. Thorough documentation is required, and more work is created to represent sporadic years of perpetual access throughout your library's various access points. With this in mind, you may not want to edit your renewal much if your institution's academic programs have not undergone many changes and if subscription title usage has not dramatically shifted.

Finding the right balance for big deal subscription titles can be difficult, but encourage yourself to simply make the best decision you can with the data at hand. Generally, if you move a journal from its perpetual access status, you have moved it to access-only status, and your patrons will not lose any access as a result of your decision.

As far as reducing the overall cost of a big deal package, some libraries have found success in sacrificing their cancellation and swap allowances to lower their overall renewal increase rate. For example, your vendor may be open to decreasing your annual renewal rate from 5 to 7 percent to 2 to 4 percent if you give up cancellation and swap allowances altogether. There is more information about negotiating reduced renewal rates at the end of this chapter.

Although there is no right answer or one way to work a big deal renewal, your ultimate answer should balance the time you spend working the renewal with how the usage inside the big deal has changed. Be aware that for different disciplines, curriculum or opinion may change every five years or so. Consider working with collection development staff to review for relevancy annually or every few years.

Subscription Agents and Big Deals

Some libraries prefer to handle their big deals through sub-agents because they believe that it is helpful when tracking both temporary and perpetual access. Handling big deals via sub-agents is helpful to a certain extent; however, there are potential associated costs. Depending on the sub-agent, you may negotiate your service fee for your big deal packages in several different ways:

- Sub-agents may charge the same service fee for your big deal package(s) as for the rest of your business with them.
- You may negotiate with your sub-agent for a reduced service fee for your big deal packages.
- Your sub-agent may be happy to handle your big deal package for no service fee.

Unbundling or Cancelling a Big Deal

Some institutions have broken their big deals with success but often with a significant sacrifice in terms of the amount of content. For instance, after breaking its big deal, one library reported "a 35 percent reduced price for 65 percent reduced content" (Anderson, 2017). This scenario may work for some libraries, especially if a small percentage of titles constitute the majority of use. A cost per use analysis would be necessary to determine how many and what titles are heavily used.

Most librarians assume that if they were to cancel their big deal, their ILL requests for their lost full-text content would rise dramatically; however, this is still being debated

in the literature. Wayne Pedersen, Janet Arcand, and Mark Forbis noted several instances in their literature review where ILL requests did not rise after a big deal cancellation; however, others, like Mitchell Scott, did find usage prior to their big deal cancellation to be predictive of ILL use post-cancellation (Pedersen, Arcand, and Forbis, 2014; Scott, 2016).

When determining how to replace content lost from breaking a big deal, there are also new access models to consider. Some vendors offer pay-per-view models of access with varying levels of mediation, for which an institution buys a set number of articles or tokens up front for a predetermined price per article (Fisher, Kurt, and Gardner, 2012). The Get It Now service provided by the Copyright Clearance Center is another option to replace lost full-text content. The Get It Now service is marketed as a complement to ILL services "by providing library patrons with the immediate fulfillment of full-text articles from unsubscribed journals—twenty-four hours a day, seven days a week—through a cost-effective and easy-to-use service integrated into your ILL workflow and/or OpenURL link resolver" (Copyright Clearance Center, 2017).

These new models may be viable for your institution if you find yourself in a budget crisis or if your institution's big deal just doesn't make sense anymore due to low usage. However, always remember that the amount of money you spend for individual requests will greatly increase over time as the amount of perpetual access content your library has access to decreases.

Firm Orders

E-Books

The use of and need for e-books differ somewhat between academic libraries and public libraries. Marshall Breeding explains that "while the public library e-book service is optimized for convenient access and cover-to-cover reading, e-books in academic libraries tend to be used more for reference and research, with more of an emphasis on individual chapters" (Breeding, 2017: 18). For academic libraries, therefore, e-books represent a new model of access, one which both supports budget constraints through programs such as demand-driven acquisitions (DDA) and also provides much-needed e-resources to an increasing number of remote patrons. When considering an e-book purchase or subscription, there are several facets to consider, including:

- Pricing model
- Interactive features, such as bookmarking, highlighting, and note-taking
- Digital rights management (DRM) technology
- Length of use, such as unlimited, one day, or one week
- Number of concurrent users
- Images or other graphic inclusions
- Perpetual access

The prior bulleted list can also be used as a checklist to document what the library is getting as part of its purchase or subscription. This should help you avoid many common e-book access pitfalls. The following scenarios demonstrate that thorough investigation is required to ensure that the e-books you are selecting will meet the needs of your patrons.

E-BOOKS AND DIGITAL RIGHTS MANAGEMENT

> Digital rights management (DRM) technology controls how digital information resources, including media, can be accessed, copied, distributed, reformatted, or otherwise changed. These software and hardware controls are usually embedded in the work or device, and can be protection schemes as basic as password protection (American Library Association, 2017).

When purchasing or subscribing to e-books, be sure to investigate if the vendor includes DRM on its titles. Different publishers and platforms enforce different levels of DRM, some of which can be burdensome to patrons. Compare the DRM restrictions with the needs and expectations of your patrons. Ask yourself, will the patron be negatively affected by the DRM in place? If so, do the benefits of the e-book outweigh those effects? Would a print copy be more appropriate?

- You trial a potential e-book platform only to receive feedback from faculty that they do not want to subscribe after all due to the lack of features they are used to encountering on larger vendors' platforms.
- Hoping to provide ease of access to patrons, you subscribe to several individual art history e-books instead of purchasing the print copies. However, you discover the e-books do not include any of the images—only full-text—something which was not forthrightly advertised in the vendor's product listing. You are able to receive a refund for the titles after demonstrating that the lack of images is not well advertised.
- While responding to a request for some nursing e-book titles that are only available on the publisher's platform, you discover that, in addition to paying list price for the titles, the library must pay an annual, continuing access fee for the publisher's site. Your library decides that it is not financially feasible to subscribe to e-book titles at list price without perpetual access.

It is important to document the what, where, and how of your e-book subscriptions and purchases, not just for yourself or for acquisitions purposes, but also for your patrons. With the large variances in offerings between vendor platforms, patrons can easily get confused about what features and functionality are available. For instance, some platforms offer the ability to bookmark, highlight, or annotate the text; others provide user accounts for saving title lists or personal notes; and still others provide only the bare-bones text.

To help alleviate patron confusion, many libraries use research guides to highlight their major e-book collections with notes on concurrent user limits, other access details, and features. If your library has yet to commit to multiple e-book vendors, be sure to weigh your needs and wants against what each vendor offers in terms of functionality. Some libraries accept that they will need to sacrifice certain features to gain the content they want.

DDA/PDA

As their collections budgets dwindle, libraries have worked out new models of providing access with vendors. One very popular model for purchasing e-books is demand-driven

acquisitions (DDA), which is also referred to as patron-driven acquisitions (PDA). For their DDA plan or program, libraries can choose a subset of titles based on publisher or discipline to make discoverable to their patrons. When a patron interacts with the title, such as by viewing or downloading it, the library will either be charged for the full price of the title or for a short-term loan (STL), depending on the DDA plan. Typically, libraries set a max spend amount with their DDA plan vendor, which includes both purchase and STL amounts. Once the money runs out, libraries will need to reassess whether or not they will continue with the program. Libraries can also introduce spending caps for the STLs generated from their DDA plans. For example, they may deny a patron access to the e-book in question if the STL costs more than $80.

STLs vary in price from publisher to publisher; the majority represents a fraction of the list price for the title while other publishers do not allow for STLs and initiate a purchase at the first moment of access. With the STL model,

> an ebook must receive a number of loans before a final purchase is made. The library presets the loan period generally for 1 day or 1 week, and the cost varies with the duration of the loan. Depending on the publisher, the 1-day loan fee ranges anywhere from 5% to 30% of the ebook's list price. The 1-week loan fee ranges from 15% to 45% of list, although a few publishers may charge up to 90% of list. Once a certain number of STLs (most often three) have been triggered, the ebook is purchased. The final cost is the sum of each rental fee, plus the price of the ebook. (Zhang and Downey, 2017: 5)

The cost savings of the STL model is still up for debate. Yin Zhang and Kay Downey argue against it, especially after publishers have continued to aggressively increase their STL rates. Others, such as Ann Roll, find that their libraries are saving money on low usage titles, which only trigger STLs and not a purchase (Roll, 2016). The literature is ripe with case studies where libraries have analyzed the return on investment of their DDA plans several years after implementation. We recommend that you find a case study with a library or DDA implementation similar to your own, whether in the number of students, titles, publisher, discipline of e-books, STL model, or purchase model. You could even ask your vendor to put you in touch with other libraries who have implemented similar DDA programs, which is helpful for technological aspects as well.

DDA and Approval Plans

Many libraries have cancelled or edited their traditional print approval plans in response to the emerging DDA model. Approval plans are a historic collection development model which libraries have used to fill their shelves with relevant titles, requiring less work on the front end for librarians. They can be based on a number of criteria, including certain subject disciplines or publishers.

Approval plans have been called "just-in-case" collecting, given that there is no patron need initiating the purchase and the material may never be used. DDA, on the other hand, has been referred to as "just-in-time" collecting, given that the purchase is triggered by an actual need (Roll, 2016). While some libraries have cancelled their traditional print material approval plans in favor of electronic DDA plans due to decreasing budgets, others are embarking on a hybrid model: a demand-driven preferred approval plan. This model provides a great amount of flexibility and combines the selection method of an approval plan with the demonstrated need for purchase of a DDA plan. Carmelita Pickett, Simona Tabacaru, and Jeanne Harrell; Tina Herman Buck and Sara Hills; and

Roll all recount their considerations and experiences with this model (see the references at the end of this chapter).

EBA

Similar to the DDA model is the evidence-based acquisitions (EBA) model. The major difference is that typically the cost of an EBA program is agreed upon and paid up front with a deposit account, while the cost of a DDA program is paid continuously or at the end of the program's run and the exact amount can vary. An example EBA program would be providing your patrons access to all of a single publisher's 2018 e-books. Your library would commit up front to a certain dollar amount. Some vendors have a required minimum spend for their EBA programs, such as $20,000. EBA programs run for a designated amount of time—for example, one year—after which it is common for the vendor to provide your library with a usage report. Typically, libraries choose to spend their set amount on the top use titles, although there could be exceptions, such as if a title will be used for a particular class in the future. The number of titles you will gain depends on publisher pricing.

Databases

The majority of database subscriptions are direct orders, which means you must contact and pay the vendor directly. For most database subscriptions, all customers subscribe and gain access to the same content; however, there are a few databases which are sold in pieces. Also, some databases withhold updates to content unless you pay an update fee, which is generally a percentage of your annual renewal rate. If you are uncertain which you are paying for, check your renewal invoice or historical acquisitions information or else contact the vendor to ask if it can shed more light.

Database subscriptions are generally renewed on an annual basis. However, some vendors do accept multi-year renewals, where payment for multiple years is made up front. Discounts are also sometimes given for multi-year renewals. Before initiating any multi-year renewals, be sure to check with your accounting department; they may not prefer to set up multi-year agreements due to fluctuating budgets. For public institutions, you may need to include a clause in your e-resource's license for early termination due to insufficient funds. Additionally, a multi-year renewal may not be appropriate if you are likely to cancel the resource. You may want to touch base with your collection development staff to determine if cancellation is likely. Overall, we would recommend avoiding multi-year agreements unless the potential savings are substantial.

Budgeting and Renewals

Budgeting for serials and e-resources can be stressful due to ever-increasing renewal rates. EBSCO's *2018 Serials Price Projection* estimates that the overall publisher price increase will be from 5 to 6 percent, compared to the average U.S. inflation rate of 1 to 2 percent per year (EBSCO, 2017). Luckily, despite having such high price increases, you can successfully anticipate your needs and budget if you put in some proactive effort to be organized.

To start, we recommend meeting with your internal library budget officer or accounting department to discuss some basic operations questions, such as:

How are things paid at your institution? It is likely that once the library processes an invoice in its ILS, the invoice is sent on to the accounting department where a check is then issued to the vendor. You may also have a credit card to use for acquisitions purposes.

Approximately how long does it take for vendors to receive a payment? A typical time period is two to four weeks, although some payments may be applied much sooner. This estimated time period is very important to know since some vendors are strict about payment due dates, even if they issue your invoice only thirty days prior.

Who should I contact if a vendor has not received payment? Outside of your standard payment window, you may need to provide a vendor with details of the payment which was issued to it.

What happens to money which is not spent at the end of the year? Is it swept back into the institution's funds?

What happens if the collections budget exceeds its original allocation? Do I need to attempt to cancel that exact amount towards the end of the year? Or is there any "cushion" money from elsewhere in the library that could be used to shore up the collections budget? This will likely vary on a year-to-year basis.

What documents am I required to keep in my department for audit purposes? Documents in your purview are those outside of the documents kept by either the library budget officer or your institution's accounting department. If you are not technically required to keep any documents, it is still good practice to keep copies of invoices and other financial forms or licenses for two to five years, or even longer. Historical documents demonstrating payment are essential when arguing for perpetual access.

Once you have a better idea of the financial workflow at your institution, you can focus on your collections budget and analyze historical spending trends to prepare yourself for the future. Consider the example budget in Table 4.2, which includes fictional renewal rate increases. In this example budget, the projected percentage increase for each year is 6 percent. The example budget does not factor in any new resources or resource cancellations; it assumes that the collection remains static. While this projection is fairly accurate, given the numbers, e-resources and serials pricing fluctuates greatly due to the rate increases set by vendors and the reduction in these rates which librarians are able to negotiate. Sometimes you will end the year with a surplus and sometimes a deficit.

If you do find yourself with a surplus, you should notify your library leadership to ensure that the funds are not needed elsewhere in the budget. It is especially important to notify leadership of any surplus as soon as possible if unused funds are swept back into

Table 4.2. Example Budget with Projected and Final Expenditures

YEAR	PREVIOUS YEAR EXPENDITURE	PROJECTED EXPENDITURE	PROJECTED % INCREASE	FINAL EXPENDITURE	FINAL % INCREASE
2015	$1,000,000.00	$1,060,000.00	6%	$1,059,000.00	5.9%
2016	$1,059,000.00	$1,122,540.00	6%	$1,127,835.00	6.5%
2017	$1,127,835.00	$1,195,505.10	6%	$1,196,632.94	6.1%
2018	$1,196,632.94	$1,268,430.92	6%	$1,266,037.65	5.8%

your institution's accounts at the end of the year. Otherwise, a good use of surplus funds is to see if any of your vendors, especially your sub-agents, will allow for pre-payment for the next fiscal year.

With budget shortfalls, it is best to know as soon as possible how dire the situation is. We discuss a renewal calendar in the next section that will help facilitate this. When attempting to estimate how much you will spend during the next fiscal year, ask yourself the following questions:

- What has been the average price rate increase across the entire collections budget over the last five years?
- Are there any new or renegotiated items which will enter your budget this year?
- What, if any, is the estimated budget for new resources?
- What, if any, is the estimated savings from recently cancelled resources?

All of these data points will give you various ranges of possible outcomes. Always lean towards estimating higher rather than lower. Once you have an estimated spend range you feel confident about, maintain open communications with your library leadership about how large your projected deficit will be. The more advanced notice you give them, the more time they have to creatively rearrange money or campaign for an increased budget. Notifying your leadership quarterly of any changes or updates to your projected expenditure is good practice.

Renewal Calendar

Within this section, we focus on the renewal workflow after you have decided what resources you are maintaining, cancelling, or newly acquiring. For a discussion of methods used for evaluating renewals, please refer to Chapter 8.

Depending on your ILS system, you may be able to run a report of the previous fiscal year's expenditures to help budget the current fiscal year. However, sometimes these reports are fractured or overly complicated. For simplicity and clarity, many e-resources librarians instead choose to create a renewal calendar outside of their ILS to assist them with budgeting. There may or may not be an existing renewal calendar for e-resources at your library. Don't worry if you are starting from scratch; your renewal calendar simply needs to represent the major categories on which you spend your collections dollars. You can increase granularity as you go along.

We recommend starting with a spreadsheet for your renewal calendar since it is easy to translate to other systems later. You also could create an Access database to keep track of your renewals or use an ERM, if your institution has one. You could also populate a system which generates reminders, such as Asana or Microsoft Outlook, to prompt you to start and keep track of the renewal workflow.

The following categories are a good start to organizing your renewal calendar: sub-agents, direct orders, and miscellany. Sub-agents are typically low maintenance and can be relied upon to send invoices in a timely manner. The same cannot be said for direct orders since those invoices tend to slip through the cracks. We recommend you proactively solicit invoices from these vendors. To budget correctly and comprehensively, direct orders should be listed out individually on your spreadsheet, whereas you could list your total sub-agent expenditure as one amount. See Table 4.3 for an example renewal spreadsheet.

Table 4.3. Example Renewal Spreadsheet

			PROJECTED COST	PROJECTED INCREASE	ACTUAL COST	ACTUAL INCREASE
	15/16	16/17	17/18		17/18	
January 2018						
Database ABC	$200	$204	$208.08	2%	$208.08	2%
Database DEF	$1,200	$1,248	$1,297.92	4%	$1,310.40	5%
Database GHI	$20,000	$20,600	$21,218.00	3%	$21,218.00	3%
February 2018						
Database JKL	$12,500	$13,250	$14,045.00	6%	$13,912.50	5%
Database MNO	$6,000	$6,120	$6,242.40	2%	$6,303.60	3%

It may also be helpful to populate the previous two to five years of data so you can see at a glance if you are being billed correctly, what your historical increases have been, and what year you added or cancelled a resource. Remember, the ultimate goal is to facilitate accurate budgeting with your renewal calendar.

Working Subscription Agent Renewals

Unless your library is intending to make a significant number of additions or cancellations for the upcoming year, sub-agent renewals generally do not require a great amount of work. The main goal for sub-agent renewals is to understand what subscriptions they manage, check for errors, and search for potential cost savings. Pay particular attention to existing packages, and verify that they are needed. You could also analyze your individual subscriptions to see if any could be switched to packages.

Since many of the subscriptions handled by sub-agents are slated to run from January to December of each year, sub-agents will typically send out one main renewal document around August or September, with the expectation that you submit any updates (i.e., cancellations or activations) by early October. The sub-agent will then issue invoices for the next year's subscriptions around late November or early December, which is in time for the January start date. Of course, this may vary depending on your institution, so be sure to confirm any due dates with your sub-agent. Also note that, although you should see all of your subscriptions listed in your renewal paperwork, some subscriptions may have odd run dates (e.g., May to April of the next year), so you may receive invoices outside of your main renewal month. You can easily track these subscriptions and their invoices within your sub-agent portal.

Also included in your renewal paperwork will be relevant subscription notifications, such as notices about title changes, ceased publications, publisher transfers, and package updates. You will want to note any changes and create action items to update your holdings and discovery systems as necessary.

Once your renewal paperwork has been submitted and fully processed, you will want to check your sub-agent's administration portal to be certain new subscriptions and cancellations have been accurately added or removed. Occasionally, cancellations from years past resurrect themselves, or a subscription accidentally gets added to your account. We

recommend running a report of your previous year and current year subscriptions so that any additions or subtractions can easily be spotted. Beware of metadata changes while going through your report, however. Updated sub-agent title numbers can make existing subscriptions look like new subscriptions.

Acquisitions Checklists: Renewed, Cancelled, Newly Acquired, and Trialed Resources

We provide example checklists for renewed, cancelled, trialed, and newly acquired resources in this section. These checklists are intended for inspiration only; you will likely need to add or remove points that are relevant to your institution.

Resource Renewal Checklist

A personal checklist, in combination with a notification system, is a great way to ensure that no parts of the renewal process are forgotten. Although vendors are definitely interested in keeping your library's business, they sometimes communicate poorly when it comes to soliciting and receiving renewal payments. Lenient vendors may not mind receiving payment two or three weeks after the official renewal date, but others may choose to cut access instead—sometimes without even notifying the library they have done so! Therefore, it is in the best interest of your library to solicit renewal invoices from vendors proactively and well ahead of time.

In the resource renewal checklist, we give recommended timelines to complete different tasks: for example, to request an invoice sixty days before your renewal date. These are just helpful guidelines, and the required lead time before action for renewals varies by

RESOURCE RENEWAL CHECKLIST

- ☐ Sixty days before renewal—contact vendor for renewal quote
- ☐ Sixty days before renewal—request invoice from vendor
- ☐ Thirty days before renewal—pay invoice

Add these events to the timeline if dealing with license negotiation:

- ☐ Ninety days before renewal—contact vendor to begin license negotiation
- ☐ Sixty days before renewal—if license requires signature outside of library administration, pass on final document to appropriate party (provost, president, etc.) to be signed

Add these events to the timeline if renewal approval is needed:

- ☐ Ninety to 180 days before renewal—provide collection development staff with quantitative data to evaluate resource
- ☐ Ninety to 180 days before renewal—receive response to keep or cancel from collection development staff

vendor. Some vendors reliably send invoices before your renewal date, so not everything is a long, drawn-out process. Also, you may only be concerned with asking for renewal quotes from vendors who you know typically increase more than 5 percent each year.

A major bottleneck for renewal workflows occurs when you are waiting on coworkers at your institution for a collection development decision or a license signature. Be sure to take these potential holdups into account and allot enough lead time to attend to these tasks before your renewal date.

Resource Cancellation Checklist

If you are facing a budget deficit, decide alongside your administrators the exact dollar amount of what needs to be cut as soon as possible. Remember to clarify with your library leadership if there is any money available from other sources to assist with the budget deficit, so that you will not need to cancel as many resources outright. The best case scenario would include:

- Having enough time to comfortably analyze your resources for what to cancel.
- Involving collection development staff and providing them with enough prepared data to make an informed decision.
- Where applicable, proactively discussing a unified narrative which library staff can use to inform constituents of cancellations.

RESOURCE CANCELLATION CHECKLIST

- ☐ Cancel resource with vendor (note: vendor may require advanced notice, e.g., thirty days)
- ☐ Document cancellation notes in "Acquisitions" module of ILS and elsewhere, as relevant
- ☐ Move any physical papers to "Cancelled" filing section
- ☐ Perpetual access
  - Edit holdings to reflect perpetual access (check all applicable)
    - ERM
    - Link Resolver
    - MARC Record
    - Database List
    - Research Guides
    - Other
- ☐ No perpetual access
  - Remove holdings from patron view (check all applicable)
    - ERM
    - Link Resolver
    - MARC Record
    - Database List
    - Research Guides
    - Other

New Resource Checklist and Resource Trial Checklist

It can feel as though there are 20,000 to-do list items when setting up a new subscription. Outside of crossing off the innumerable to-dos, be sure to document any details or feedback that went into the decision to subscribe or purchase. This can be done in conjunction with collection development staff, and granularity of documentation can vary as needed. Large or costly subscriptions should be documented, as well as any resources trialed.

Resource trials can provide valuable feedback to both library staff and patrons when either is on the fence about fully committing to a new subscription or purchase. Sometimes in the blur of everyday work, the data generated from trials, whether usage statistics or feedback from patrons, can get pushed to the side without being captured. Best practice is to document trial feedback, whether positive or negative, for the historical record. Faculty or curriculum needs do fluctuate, and you may receive a request to trial a resource in 2020 which your institution trialed previously in 2018.

Negotiating Renewal Rates and Creating a Narrative

Unless they are priced at a flat rate, most resource renewal rates are negotiable. While there is no right way to negotiate renewal rates, creating a narrative around relevant criteria is

NEW RESOURCE CHECKLIST

- ☐ Request price quote from vendor
- ☐ Request license from vendor
- ☐ Verify that the resource aligns with library's collection development policies or standards
- ☐ Negotiate license and/or price
- ☐ Document purchase decision, including library and non-library advocates and any other pertinent details
- ☐ Catalog resource in appropriate systems
  - ◦ ERM
  - ◦ Link Resolver
  - ◦ MARC Record
  - ◦ Database List
  - ◦ Research Guides
  - ◦ Other
- ☐ Set up resource authentication
- ☐ Register at vendor administrative and/or usage site (check all applicable)
  - ◦ Enter IP ranges
  - ◦ Enter branding
  - ◦ Set up SUSHI
  - ◦ Address other settings
  - ◦ Other
- ☐ Add resource to renewal calendar or other relevant workflows
- ☐ Document vendor contacts for licensing, technical support, billing, and usernames/passwords for vendor sites

RESOURCE TRIAL CHECKLIST

- ☐ Contact collection development staff to determine desired dates for trial
- ☐ Contact vendor for trial information
- ☐ Set up authentication for trial (such as EZproxy)
- ☐ Once trial is activated, provide access to trial information to patrons
  - ◦ E-mail
  - ◦ Library website
  - ◦ Research guides
  - ◦ Other
- ☐ Once trial ends
  - ◦ Remove access from patrons
  - ◦ Provide collection development staff with usage statistics
- ☐ Document trial for historical record, including outcomes, feedback, usage statistics, and price quote

often helpful for convincing vendors to maintain or decrease renewal rates. Relevant criteria can include: how much monetary business you carry with the vendor, the history of your renewal rates, comparative renewal rates in the discipline of the resource in question, and any updates to the content, coverage, or technology of the resource. This takes the negotiation pressure off of you personally and holds the vendor accountable for its renewal increase by justifying it on concrete criteria. As always, when you are engaged in dialogue with your vendor, remember to remain respectful and timely in your responses. Create alerts for yourself that allow you to follow up on the process and see it through to completion.

Beyond a justification narrative, being open and honest about your budget situation can be beneficial when negotiating with vendors. If you are experiencing a flat, slow-growing, or decreasing budget, let the vendors know. They may be willing to waive, postpone, or reduce the increase until conditions improve. Do use some caution when providing budgetary details to a vendor, however. In general, percentages are safe and provide enough context for the conversation. Use statements such as, "This resource represents X percent of our spending on STEM databases" or "This resource represents X percent of our overall e-resource budget." You might also make broad, informative statements, such as "We have had a flat collections budget for the past four years."

Whether or not you anticipate new money to be spent with a particular vendor in the future, it is beneficial to maintain an open dialogue with all of your vendors about the state of affairs at your library. Even if you think that you are just one more customer informing them that your budget has been reduced, your vendors need to hear so; it informs their business practices, and any feedback libraries can provide has the potential to positively affect the future market in our favor.

Key Points

- Acquisitions order types can be very fluid. Be sure to know exactly what you are ordering ahead of time, and ask vendors up front if you are unsure.

- Investigate new access models as you come across them. Although they may not be relevant to your library's needs now, it is important to educate yourself on trends in the market. Don't be afraid to approach vendors to discuss an access model that they do not currently advertise.
- Budgeting can be made easier by creating a renewal calendar that captures the major categories where you spend your collections dollars. Once you have identified the different slices of your overall budget, create a workflow which will prompt you to walk through the renewal process with enough time to navigate any issues that may come up.
- Remain in open communication about your budget with your library's leadership, including whether you will be short of money or have savings at the end of the year.
- Remain in open communication with your vendors about your library's budget. Negotiation of fees and other compromises may be possible.

References

American Library Association. "Digital Rights Management (DRM) & Libraries." Last modified 2017. http://www.ala.org/advocacy/copyright/digitalrights.

Anderson, Rick. "When the Wolf Finally Arrives: Big Deal Cancellations in North American Libraries." *The Scholarly Kitchen*. Last modified May 1, 2017. https://scholarlykitchen.sspnet.org/2017/05/01/wolf-finally-arrives-big-deal-cancelations-north-american-libraries/.

Bergstrom, Theodore C., Paul N. Courant, R. Preston McAfee, and Michael A. Williams. "Evaluating Big Deal Journal Bundles." *Proceedings of the National Academy of Sciences of the United States of America* 111, no. 26 (July 2014): 9425–30.

Breeding, Marshall. "The Complicated Story of Ebooks in Libraries." *Computers in Libraries* 37, no. 5 (June 2017): 16–18.

Carnegie Classification of Institutions of Higher Education. "Size & Setting Classification Description." Last modified 2017. http://carnegieclassifications.iu.edu/classification_descriptions/size_setting.php.

Copyright Clearance Center. "Get It Now." Last modified January 12, 2017. http://www.copyright.com/academia/get-it-now/.

EBSCO. "EBSCO 2018 Serials Price Projections." Last modified September 28, 2017. https://www.ebscohost.com/promoMaterials/EBSCO_2018_Serials_Price_Projections.pdf.

Fisher, Erin S., Lisa Kurt, and Sarah Gardner. "Exploring Patron-Driven Access Models for E-journals and E-books." *Serials Librarian* 62, issues 1–4 (2012): 164–68.

Herman Buck, Tina, and Sara K. Hills. "Notes on Operations: Diminishing Short-Term Loan Returns." *Library Resources & Technical Services* 61, no. 1 (January 2017): 51–56.

Pedersen, Wayne A., Janet Arcand, and Mark Forbis. "The Big Deal, Interlibrary Loan, and Building the User-Centered Journal Collection: A Case Study." *Serials Review* 40, no. 4 (2014): 242–50.

Pickett, Carmelita, Simona Tabacaru, and Jeanne Harrell. "E-Approval Plans in Research Libraries." *College & Research Libraries* 75, no. 2 (March 2014): 218–31.

Publishers Communications Group. "Library Budget Predictions for 2016." Last modified May, 2016. http://www.pcgplus.com/wp-content/uploads/2016/05/Library-Budget-Prediction-2016-Final.pdf.

Research Information Network CIC. "The Potential Role for Intermediaries in Managing the Payment of Open Access Article Processing Charges (APCs)." Last modified October, 2012. http://repository.jisc.ac.uk/4949/1/Gold_OA_intermediary_final_report_(2).pdf.

Roll, Ann. "Both Just-In-Time and Just-in-Case: The Demand-Driven-Preferred Approval Plan." *Library Resources & Technical Services* 60, no. 1 (2016): 4–11.

Scott, Mitchell. "Predicting Use: COUNTER Usage Data Found to Be Predictive of ILL Use and ILL Use to Be Predictive of COUNTER Use." *Serials Librarian* 71, no. 1 (2016): 20–4.
Zhang, Yin, and Kay Downey. "Ebook ROI: A Longitudinal Study of Patron-Driven Acquisition Models." *Computers in Libraries* 37, no. 5 (June 2017): 4–8.

Additional Readings and Resources

Blecic, Deborah D., Stephen E. Wiberley Jr., Joan B. Fiscella, Sara Bahnmaier-Blaszczak, and Rebecca Lowery. "Deal or No Deal? Evaluating Big Deals and Their Journals." *College & Research Libraries* 74, no. 2 (March 2013): 178–93.
Bosch, Stephen, and Kittie Henderson. "New World, Same Model: Periodicals Price Survey 2017." *Library Journal*. Last modified April 19, 2017. http://lj.libraryjournal.com/2017/04/publishing/new-world-same-model-periodicals-price-survey-2017/#_.
Busby, Lorraine. "Contentus Withoutus: Living Contentedly without Serials." *Serials Librarian* 65, no. 2 (2013): 128–35.
Cowan, Sandra, and Chris Bulock. "Open Access in the World of Scholarly Journals: Creation and Discovery." *Serials Librarian* 72, issues 1–4 (2017): 194–200.
Fruin, Christine, and Fred Rascoe. "Funding Open Access Journal Publishing." *College & Research Libraries News* 75, no. 5 (2014): 240–43.
Fulton, Karin J. "The Rise of Patron-Driven Acquisitions: A Literature Review." *Georgia Library Quarterly* 51, no. 3 (2014): 22–30.
Grabowsky, Adelia. "The Impact of Open Access on Collection Management." *Virginia Libraries* 61, no. 1 (2015): 17–22.
Lehman, Kathleen A. "Collection Development and Management." *Library Resources & Technical Services* 58, no. 3 (2014): 169–77.
ProQuest. "Academic Library Book Purchasing Trends." Last modified 2016. http://contentz.mkt5049.com/lp/43888/438659/D187_Ebooks_Aquisition_whitepaper_v5.pdf.
Qaimari, Nader, and Bethany Dotson."Emerging Business Models: Usage-Driven Acquisition." *Information Services & Use* 34, no. 1–2 (2014): 71–74.
Quinn, Michele Myatt. "Open Access in Scholarly Publishing: Embracing Principles and Avoiding Pitfalls." *Serials Librarian* 69, no. 1 (2015): 58–69.
Reynolds, Regina, Marla Whitney Chesler, and Melissa Beck. "The Tao of Serials: 101 Things Non-Catalogers Should Know About Serials . . . or Is It Continuing Resources?" *Serials Librarian* 56, no. 1–4 (2009): 44–53.
Sammonds, Laurel Ivy. "Sustainable Collections: The Pay-Per-View Model." *Serials Librarian* 63, no. 2 (2012): 173–77.
Solomon, David J., and Bo-Christer Björk. "A Study of Open Access Journals Using Article Processing Charges." *Journal of the American Society for Information Science & Technology* 63, no. 8 (August 2012): 1485–95.
Song, Xiaoyan. "When There Is No Magic Bullet: An Interlocking Approach of Managing E-Books." *Serials Librarian* 72, no. 1–4 (2017): 160–65.
Spratt, Stephanie J., Gabrielle Wiersma, Rhonda Glazier, and Denise Pan. "Exploring the Evidence in Evidence-Based Acquisition." *Serials Librarian* 72, no. 1–4 (2017): 183–89.
Sutton, Sarah. "A Model for Electronic Resources Value Assessment." *Serials Librarian* 64, no. 1–4 (2013): 245–53.
Weicher, Maureen, and Tian Xiao Zhang. "Unbundling the 'Big Deal' with Pay-Per-View of E-journal Articles." *Serials Librarian* 63, no. 1 (2012): 28–37.
Weir, Ryan O. "Trimming the Library Materials Budget: Communication and Preparation as Key Elements." *Serials Review* 36, no. 3 (September 2010): 147–51.

CHAPTER 5

The Help Desk

IN THIS CHAPTER

- ▷ Soliciting help tickets from patrons and library staff
- ▷ Diagnosing and recreating access issues
- ▷ Triaging access issues
- ▷ Preventing access issues with subscription maintenance and access checks

LIBRARIES RELY UPON AN EXTENSIVE, INTERCONNECTED NETWORK of technologies to supply access to their electronic resources. A patron, by simply finding and downloading a single e-book from a library's website, will utilize multiple programs and software applications, each of which forms an indispensable link in the access chain. When these technologies function as they should, this access process is all but invisible to the patron. However, if even one link in the chain is broken, the patron will be confronted with error messages, misdirects, and paywalls, all denying access to the desired resource.

While regular resource maintenance, such as the access checks we describe later in this chapter, can help prevent or mitigate access issues, electronic resources, like all computer-based technologies, cannot function perfectly 100 percent of the time. Patrons can and will encounter access issues, and it often falls to the e-resources librarian to figure out why. Troubleshooting, therefore, is an essential skill to develop. In this chapter, we will discuss the various methods for cultivating this skill—from soliciting help tickets to recreating, diagnosing, and resolving access problems. Troubleshooting does not need to be an intimidating prospect. With a bit of knowledge and practice, everyone can run their own mini e-resources help desk.

Soliciting Help Tickets

The first step to resolving an access issue is to realize an access issue exists. Many times, the number of e-resources within a library's collection is too vast to constantly monitor for access interruptions. Instead, the e-resources librarian must rely on others to uncover and report problems. By actively soliciting help tickets, the e-resources librarian can harness the power of the crowd to discover where access issues exist, how long they persist, and who is being affected by them.

Reporting Methods

Several methods are available for soliciting help tickets. Your library will likely already have an established method (or methods), which you will need to work within. Most common reporting methods include:

- Dedicated library help ticket system
- Subset of an institution's help ticket system
- Online help form
- E-mail
- Chat
- Phone call

Within the first few months on the job, you will want to get trained on any ticket systems that you are unfamiliar with. You will also want to discuss with relevant parties (e.g., the IT department, reference department, etc.) how best to utilize these reporting methods, both in terms of visibility and obtaining the information necessary for troubleshooting.

SPRINGSHARE'S LIBANSWERS AS A HELP TICKET SYSTEM

"At Webster University Library, we use Springshare's LibAnswers for our eResources ticketing system. The eResources team was able to make the platform work for our needs by adding an extra queue to ensure we would be separate from the Research (Reference) Department. This allowed the eResources team to have our own question form, e-mail templates, and notifications. Customizations for our needs were very easy within LibAnswers and had a similar setup as LibGuides, which we use as well. We were able to set up the ticketing form where patrons log their access issues to include very specific questions, drop-down menus, and required responses. All of these options help the team to expedite troubleshooting. We also set up e-mail templates, which save responses to commonly asked questions so we aren't constantly typing in the same answers. The notifications are by far the most useful for us. Having a direct e-mail from the platform to alert us when a new ticket comes in and being able to respond directly from our e-mail makes this setup very convenient and easy to use."

—Heidi Vix, Electronic Resources Librarian, Webster University

The 4W1H

In school, you likely learned about the 5 Ws and 1 H (5W1H) of writing: who, what, where, when, why, and how. By answering each of these questions, a person can effectively paint a picture of an event, whether that be in a fictional story, newspaper article, or police report. Similarly, troubleshooting relies upon the 4W1H—who, what, where, when, and how—in order to paint a picture of an access issue and answer the last of the 5 Ws: why. It is only by uncovering the why—why was this person unable to access this resource?—that the issue can be resolved.

When soliciting help tickets, you will want to gather as much of the 4W1Hs as possible. This can be accomplished through prompts in your ticket system or questions on a form. It can also be extracted through natural, back-and-forth conversation over e-mail, chat, or the phone. Regardless of the method, you ultimately want to get the following:

WHO reported the issue? Be sure to get the submitter's name, library status (current cardholder, visitor, graduate student, etc.), and contact information. Not only do you need this information to respond with a solution or explanation, but it can also provide vital clues for troubleshooting.

WHAT is the issue? Get a detailed explanation of what problem occurred. If they encountered an error message, what did it say? If possible, have them submit a screenshot of the problem. After all, a picture is worth a thousand words.

WHERE did the issue occur? Find out where the submitters were located, both physically and electronically, when the issue occurred. Were they at home? On a library computer? On their phone at the airport? Pay particular attention to what kind of device, browser, and Internet connection they were using, as these can all affect access.

WHEN did the issue occur? Find out the timeframe for the issue. When did it occur? Is this the first incident or a recurring problem? The timing of the issue can sometimes offer an explanation (e.g., it occurred during scheduled server downtime) or give you a handle on how persistent it is.

HOW was the issue encountered? Ask the submitters to retrace their steps. How did they get to the access issue? Where did they start from? What links did they click on? What prompts did they encounter? The more you can visualize their journey, the easier it is to recreate the problem.

Reporting Groups

Help ticket submitters can be separated into two broad groups: internal reporters and external reporters. How much of the 4W1Hs you collect from the initial help ticket is largely dependent on the reporting group submitting it.

Internal Reporters

Internal reporters are those who work within the library and, as part of their daily work duties, stumble across issues with access. Common internal reporters include frontline staff, such as reference or access services librarians, and resource sharing staff, such as interlibrary loan librarians. Since these reporters work within the library, they are much more familiar with the mechanisms that provide access than the average patron and have both the time and incentive to provide detailed reports regarding what went wrong.

HELP TICKET SUBMISSION CHECKLIST

- ☐ Resource name/citation information
- ☐ Resource permalink (not from browser address bar)
- ☐ Where did you encounter the issue (A–Z list, catalog, discovery layer, or research guide)?
- ☐ Patron contact info
- ☐ Describe the issue
- ☐ Screenshot
- ☐ Urgency

We recommend you reach out to these departments and set up some guidelines together for how to best submit help tickets. For instance, you can provide a checklist of pertinent items to include, such as the 4W1Hs, links to records, or screenshots of errors. If they are reporting the issue on behalf of a patron, you will also want to be sure they include that patron's contact information so you can provide the necessary follow-up. We have included a sample checklist here.

External Reporters

External reporters are those who do not work within the library. Most often they are the library's patrons—students, faculty, city residents, walk-in users, and so on—but they may also include other entities, such as external stakeholders (e.g., the president of a university), outside institutional departments (e.g., the campus-wide IT department), or vendors. External reporters will only have a cursory knowledge of the library's access mechanisms and therefore will be much more limited in how they report problems. While you should still endeavor to glean as much information from these reporters as possible, the initial help ticket submission process should be kept concise in order to encourage reporting.

Recreating and Diagnosing Problems

Once an access issue has been reported, the next step in the troubleshooting process is to recreate and diagnose the problem. Recreating the problem is an essential first step for diagnosis because it helps determine if the issue is specific to the reporter—for instance, a problem with the patron's device or account—or if it is affecting others. Recreating the problem also allows you to travel down the chain of access to see for yourself exactly where the disruption occurred.

The Access Chain

When discovering an electronic resource, patrons must travel through a chain of interconnected technologies to achieve access, whether it is to view, download, print, or otherwise interact with the resource. In Chapter 2, we talked extensively about what these various technologies are and how they work. Effective troubleshooting takes this technological

TOOLS FOR RECREATING ACCESS ISSUES

Website Availability Checkers

Site availability checkers allow you to see if a website is down (unavailable) for everyone or just you. If it is only down for you, it may have to do with your Internet connectivity or filters put in place at your institution. To use a website availability checker, type the URL of the desired website without any proxy prefix into the search bar on the checker's home page:

http://downforeveryoneorjustme.com/

http://www.isitdownrightnow.com/

Checking Off-Campus Access

Many times you will be located on-campus (i.e., within authorized IP ranges) when trying to troubleshoot access issues for patrons off-campus. Here are some ways to mask your IP address to mimic being off-campus.

Static IP address: Some institutions can set up your work computer with a static IP address that has been configured in your library's proxy to always prompt for authentication. This allows your computer to act as if it is off-campus. However, fewer and fewer IT departments permit this; you will likely need to use other methods to mimic being off-campus.

Smartphone data: A quick and easy way to mimic being off-campus is to use your smartphone data to access an e-resource. Be sure to turn off your Wi-Fi so that it does not connect to the campus Wi-Fi network. While using a smartphone may not be efficient for doing intensive troubleshooting, it will allow you to quickly check if off-campus access is being disrupted.

Tethering: Similar to using your smartphone, you can connect (tether) your computer or laptop to your smartphone in order to use its data. But remember that you are using your personal smartphone data, so be cautious if you have data limits on your cellular plan.

VPN service: Some institutions may allow you to set up a third-party VPN service on your work computer or laptop. The VPN service will mask your IP address, allowing you to appear off-campus. Some free services include Tunnelbear, Windscribe, and HotSpot Shield. Often, the free services will have limits on the amount of data you can access per month, so be sure to read the fine print.

knowledge one step further by understanding how these technologies function as part of an access chain, and, more importantly, what it looks like when they break.

A library's access chain will vary based on which technologies it has chosen to employ. For instance, one library may encourage its patrons to use a VPN for authentication, which the patron would ideally do at the start of the discovery process. Another library,

however, may rely solely on a proxy, which the patron encounters once an item has been selected from within a discovery tool. Katherine Hart and Tammy Sugarman mapped out one such access chain while analyzing Georgia State University Library's various points of access failure (Hart and Sugarman, 2016).

As illustrated in Figure 5.1, there are roughly twenty-two pieces within Hart and Sugarman's chart that show how the patron moves from a device to the library's discovery system to his or her desired article. As the e-resources librarian, you should aim for a similar depth of understanding of your library's access chain; however, for the purposes of this chapter we have boiled down the access chain into seven general stepping-stones, as shown in Figure 5.2.

In this access chain, the patron begins by selecting a device to use while searching for resources. Next, he or she will open up a browser, navigate to one of the library's discovery tools, such as a discovery layer or catalog, and begin to search. The patron then locates an item of interest, which is represented in the discovery system by a record (often referred to as an item record or resource record). Once the patron clicks an access link from within the record, the link resolver uses the metadata from the item record to create the URL that leads the patron to the actual item. However, before arriving at the item, the patron is vetted for affiliation with the library through an authentication method, such as SSO, proxy, or IP recognition. Upon successful authentication, the patron will be taken to the item on the vendor's website. The patron has now achieved access to the item and can view, print, download, or otherwise interact with it.

Certain symptoms and access issues can be associated with each of these seven steps in the access chain. By recognizing the symptoms, you can identify where in the chain the breakdown occurred and begin to diagnose and resolve the issue. Next, we will delve into the various symptoms and issues associated with each link in the access chain and talk about ways that these issues can be resolved.

Reproducible versus Unreproducible Problems

As we already discussed, to diagnose an access issue, you must first determine where in the access chain the problem occurred. Often, the best way to determine this is to travel down the access chain yourself, recreating the steps taken by the patron until you encounter the breakdown. But what happens if, despite retracing the patron's steps, you never encounter the problem? This, too, can give us hints as to where the breakdown is occurring.

In general, reproducible problems indicate the breakdown occurred within the library-controlled or vendor-controlled part of the access chain, such as:

- The discovery system
- The item record (i.e., the metadata)
- The link resolver
- The resource itself

Unreproducible problems, on the other hand, typically indicate an issue with the patron-controlled part of the access chain, such as:

- The patron's device, including network settings and Internet connectivity
- The patron's browser

The wildcard here is authentication, whose problems can sometimes and sometimes not be reproduced.

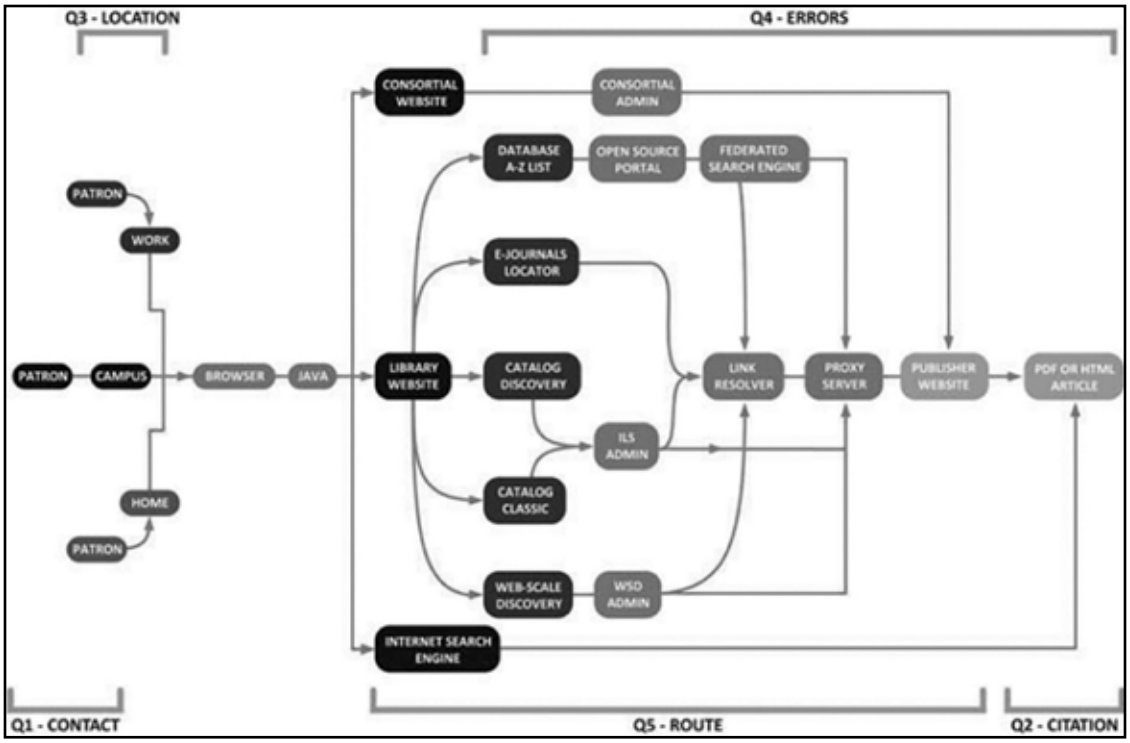


Figure 5.1. Georgia State University Library's possible points of access failure

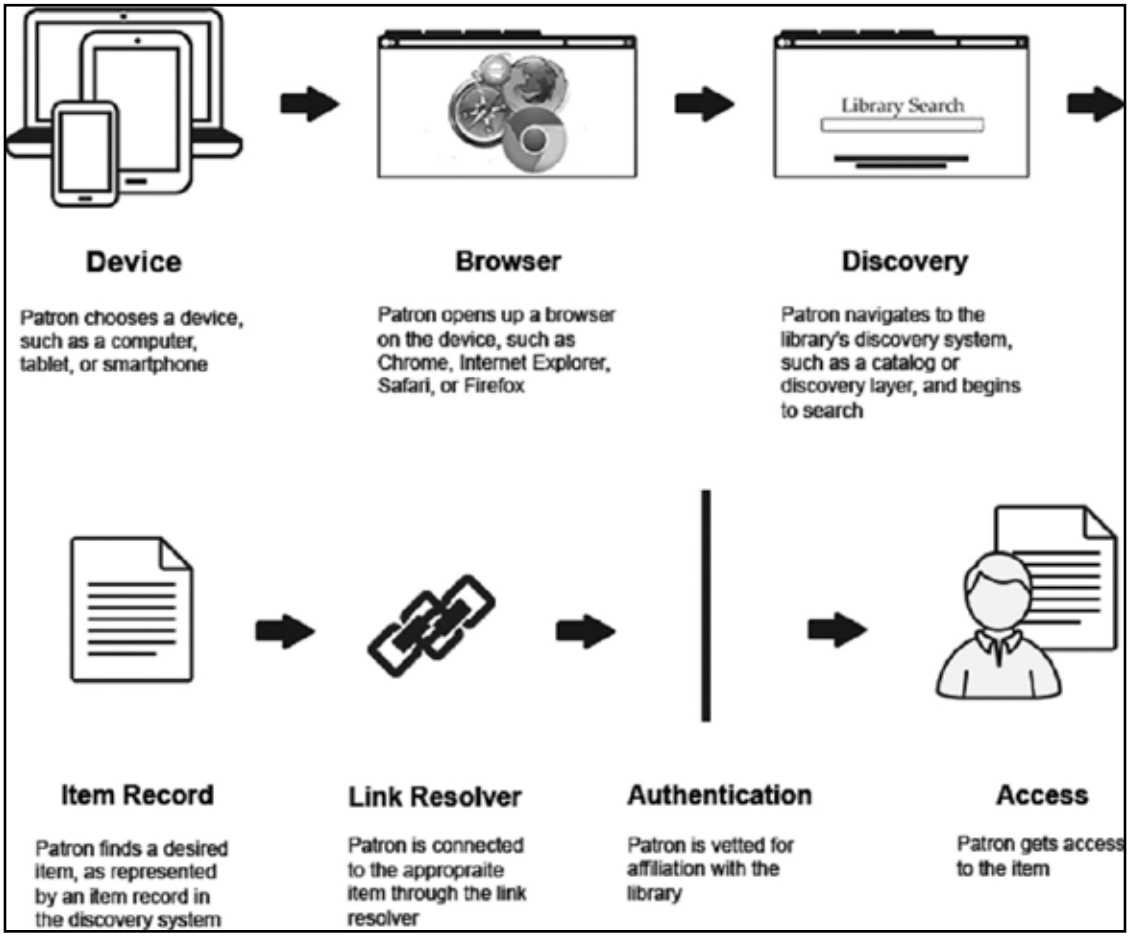


Figure 5.2. Example of a library access chain with seven distinct steps

Symptoms and Diagnoses

There are several symptoms which accompany breakdowns at certain points in the access chain. Identifying these symptoms in relation to where they were encountered within the access chain will help lead to diagnosing and fixing the issue.

Device and Network Connectivity

Device and network connectivity issues are perhaps the most difficult to diagnose and resolve, simply because they are entirely dependent upon the patron. These issues usually occur because the patron's device is incompatible with the resource (e.g., old operating system, low memory or processing speed, missing computer programs, etc.) or because the patron's network or Internet connection is faulty or incompatible. Symptoms of device or network connection issues usually include things such as:

- Web page, discovery system, or resource taking a long time to load
- Slow or failed downloads
- Time-out errors
- Being unable to open a downloaded resource on the device

Because the problem originates with the patron's personal device and network, the breakdown is often not reproducible and may present itself at multiple points within the access chain. Diagnosis of these issues, therefore, is generally the result of ruling out other possible causes and knowing which resources require additional software to be loaded on the patron's device.

Browser

Similar to device and network connection issues, problems arising from a patron's browser can sometimes be difficult to reproduce and, therefore, diagnose. These issues usually occur when the browser is incompatible with a resource or when the browser settings or cache/cookies are interfering with the resource. The patron may experience things such as:

- Web page, discovery system, or resource takes a long time to load
- Parts of web page, discovery system, or resource do not load or result in an error
- Nothing happens when the patron clicks on a link or resource

Quick fixes for browser issues include having the patron switch to another browser, having the patrons clear their cache and cookies, or having the patron enable or disable plug-ins, such as pop-up blockers or JavaScript. We recommend keeping a document of instructions on how to do each of these things for the most common browsers—Internet Explorer, Mozilla Firefox, Apple Safari, and Google Chrome. This way, you can easily copy and paste the instructions into an e-mail or chat box without having to constantly retype them.

Discovery System

Access issues related to a library's discovery system are generally the result of a breakdown in the e-resource activation, maintenance, and cancellation workflow. As such, they are

easily reproducible by others. For instance, let's say a newly acquired resource was not activated within the library's discovery layer or holdings management system. That resource would not appear in the discovery layer for anyone—patron or librarian—regardless of where the people were located or what device they were using. For issues stemming from the discovery system, the patron may experience things such as:

- Resource does not appear in discovery tools, like the catalog, A–Z list, or discovery layer
- Resource appears in discovery tools when it should not
- Incorrect coverage dates are listed in discovery tools
- Incorrect vendor associated with a resource

Luckily, these issues are usually within the e-resources librarian's power to correct. Many times, the librarian simply needs to add, remove, or update the holdings information associated with the resource. Other times, the librarian may need to work with the discovery system vendor in order to correct the issue.

Item Record

When we talk about access issues surrounding item records, we are largely speaking about problems with the metadata which comprise those records. Correct, robust metadata means the item records will function as they should, making the item they represent easily findable and accessible. Incorrect or poor metadata, however, has the potential of breaking the access chain. As we talked about in Chapter 2, the metadata used for e-resources within the discovery system largely comes from the e-resource's content provider, such as a publisher or aggregator. Since there is no set standard to which these content providers must adhere, the metadata put into the discovery system can vary widely from resource to resource. When the metadata is incorrect, the patron may experience things such as:

- Missing or incorrect information appearing in the item record, such as title, author, journal, volume number, issue number, cover image, etc.
- Being directed to the wrong platform or resource through the link resolver

Fixing these issues means correcting the metadata. If the metadata is within the librarian's control—for instance, if it is in a MARC record—the librarian needs only to make the appropriate changes within the cataloging module of the ILS. However, many times the e-resources librarian will need to reach out to the discovery system vendor or content provider directly in order to resolve the issue.

Link Resolver

The link resolver takes the metadata contained within an item record and plugs it into a formula that constructs a URL leading to the appropriate e-resource. When link resolvers break, it is usually due to incorrect metadata, which we covered above, or to an incorrect or malfunctioning linking formula. Symptoms of a broken link resolver include:

- Being directed to the wrong resource/item
- Being redirected to a generic web page
- Error messages, such as "Item not found" or 404 errors

If the link resolver is broken because of a faulty linking formula, the formula will need to be updated. Likely, this will need to be addressed within the library's discovery system, either by the e-resources librarian or by the discovery system vendor.

Authentication

Authentication is one of the most critical steps in e-resource access. With the other steps in the access chain, there are often ways to circumnavigate the problem and achieve access while the issue gets resolved; however, without successful authentication, the patron cannot access the e-resource regardless of which path he or she tries. Furthermore, aside from patron record issues (for instance, an expired account), authentication issues tend to be widespread, affecting many, if not all, library users. When encountering authentication issues, the patron may experience things such as:

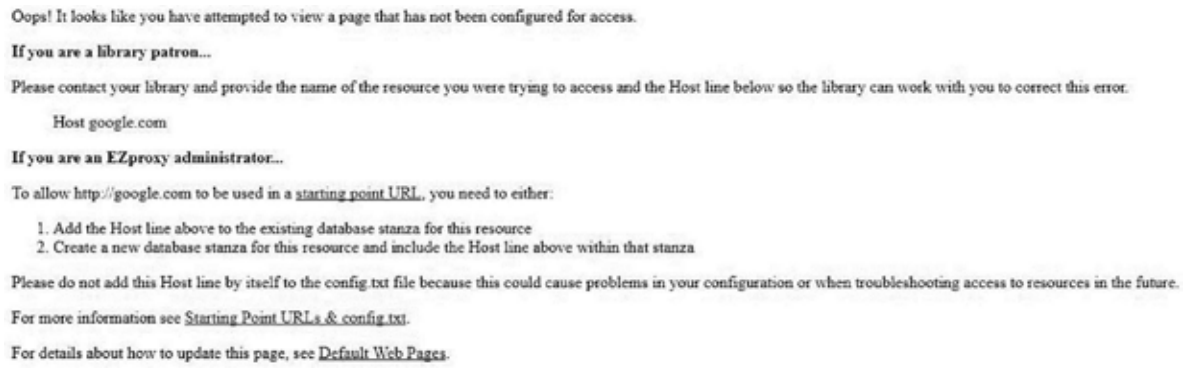
- Log-in error messages
- Access denied messages
- Hitting a "paywall"
- Hitting a "paywall" after successfully authenticating
- Being prompted to log in to the vendor website or resource instead of the library authentication system

Authentication errors can be caused by many things and are often specific to the type of method being used. For instance, an EZproxy error message (see Figure 5.3) usually indicates that the resource being accessed has not been added to the EZproxy configuration file, while a prompt to log in to the vendor website may be due to the removal of or change in the institution's IP ranges. However, don't be intimidated if you do not readily know the cause of these errors. You can work with your library's or institution's IT department to resolve these issues.

Electronic Resource

Finally, the patron may experience issues with the vendor platform or electronic resource itself. The patron may experience things such as:

- Error messages


Oops! It looks like you have attempted to view a page that has not been configured for access.

If you are a library patron...

Please contact your library and provide the name of the resource you were trying to access and the Host line below so the library can work with you to correct this error.

Host google.com

If you are an EZproxy administrator...

To allow http://google.com to be used in a starting point URL, you need to either:

1. Add the Host line above to the existing database stanza for this resource
2. Create a new database stanza for this resource and include the Host line above within that stanza

Please do not add this Host line by itself to the config.txt file because this could cause problems in your configuration or when troubleshooting access to resources in the future.

For more information see Starting Point URLs & config.txt.

For details about how to update this page, see Default Web Pages.

Figure 5.3. EZproxy error message from Lasell College, Brennan Library

- Access denied messages
- Incorrect, missing, or corrupted files
- Being redirected to a generic web page
- Hitting a "paywall"
- Hitting a "paywall" after successfully authenticating

Many times these issues are caused by a change made by the vendor. For instance, the vendor may block an account or IP address if it suspects the user is violating the terms of the license (e.g., by using a script to crawl and download articles from the website). Similarly, the vendor may cut access to the library due to a misunderstanding about renewal dates or payment. Of course, no platform is immune to technical errors, and you may periodically experience things such as unexpected downtime, corrupt files, or playback issues. However, regardless of the issue, you will need to work closely with the vendor in order to find a resolution.

Following Up

For patrons awaiting a solution to an access issue, you will want to follow up with the ticket right away. Ideally, if you are able to access the full-text content (for instance, if it is in the form of a PDF), you should send it to the patron as soon as possible. To ensure the patron is indeed affiliated with the library, you may want to send the content to the patron's official (e.g., school-authorized) e-mail. Once the issue is diagnosed and resolved, you may wish to follow up again, depending on the circumstances.

TROUBLESHOOTING AS ON-THE-JOB TRAINING

To the novice oriented around a career working in electronic resources management (ERM), troubleshooting access problems may seem the least likely of learning tools; and to one charged with hiring e-resource personnel, the value of troubleshooting in training may not be obvious. However, it is from doing troubleshooting that one incrementally acquires knowledge of the different kinds of e-resource collections in an institution's holdings, and the terms under which they are acquired (e.g., leased, owned, or individual annual subscription). You learn from detective work done in account management on vendor platforms and in acquisitions modules of integrated library systems, which are needed to troubleshoot problems as access problems are often subscription related. Correspondingly, you build valuable knowledge and skill in the use of the systems (e.g., OpenURL Link Resolvers, proxy server software, etc.) that enable online access, as access problems are often technology related. Therefore, when beginning or hiring for a new job in ERM, it is a sound practice towards learning or teaching collections and systems to immerse oneself or a new hire directly into troubleshooting.

—Christopher Morgan, E-resources and Acquisitions Support Specialist, University of Illinois Library

While following up on a ticket is especially important if the reporter is anxiously awaiting a solution to an access issue, follow-up is still important for non-urgent, routine tickets so that the reporter knows the issue has not been forgotten. When following up, you will want to:

- Restate the problem (if necessary for context)
- Explain why the problem occurred, if known
- Give the resolution or explain what is being done to resolve the problem

The explanations you give do not have to be overly technical; however, this follow-up is a good opportunity to give the reporter some insight into how the library's systems work and to see if he or she needs any additional help or support.

Access Triage

Not all access issues are urgent; however, chances are good that you will encounter a major access issue during your tenure as an e-resources librarian. When major or widespread access issues occur, it is important to have a plan of action in place, so that information and updates can be disseminated as quickly as possible to patrons, library coworkers, and other stakeholders. We recommend a combination of the following:

- Announcement to library coworkers via e-mail (such as through an all-staff e-mail list)
- Notices posted on the library website
- Notices posted to the discovery layer or A–Z lists
- Depending on the resource and severity of the issue, an announcement posted to the library social media accounts

The announcement should explain what access issue is occurring, including what errors patrons may be encountering, as well as an assurance that you (or, in general, the library) are currently working to resolve it. It may be helpful to also compose a set response to anyone who may report the issue via the help ticket system, which can then be copied and pasted as needed. As you work to resolve the issue with the vendor, IT department, and other relevant personnel, be sure to keep the channels of communication open to your library leadership and frontline staff. Let them know of any helpful updates and assure them that the issue is being taken seriously. Once the issue is resolved, make an announcement via the same channels and remove any notice banners you have placed on the website, A–Z lists, and discovery layer. And, of course, ask staff to continue reporting any further issues they encounter.

Preventing Access Issues

With the appropriate reporting systems in place, patrons and library staff will hopefully alert you of any access issues in a timely manner. However, best practice is to periodically check your holdings from A to Z to proactively identify any issues. This process is often referred to as performing access checks or subscription maintenance. In this section, we

will discuss conducting routine maintenance for both e-resources with current access and any e-resources for which you have perpetual access.

Performing Access Checks

There are different strategies for conducting access checks, but in general, you will:

- Get the title list(s)
- Check access
- Contact the vendor about missing access
- Ensure that missing access is turned back on
- Periodically repeat the entire process

Access checks should only be conducted for individual titles, not those part of an aggregator database. To conduct access checks for aggregator database titles would be a massive, and ultimately futile, undertaking since missing content issues are generally addressed by the community of subscribed libraries as they arise. Instead, it is better to focus on individually subscribed or purchased titles, and those managed through a subscription agent.

There are three main factors to consider when conducting access checks for your subscriptions. See our Subscription Maintenance Checklist for the expanded version of these factors.

- Do we have access to the content for which we are paying/have paid?
- Do we have access to the content at the correct website?
- Is access completely set up within the vendor's and library's systems? This includes registering the library's IP addresses with the vendor, ensuring access is available through the appropriate authentication methods (e.g., EZproxy), and checking that the resources are discoverable to patrons.

PRO TIP: TITLE CHANGES

Title changes are common with serials content, and there are various ways to deal with them, according to AACR2, RDA, and your local cataloging policies. Don't be tempted to take shortcuts when dealing with title changes by simply editing the coverage dates on the most recent title of a journal. Track/represent/catalog each individual journal and its coverage dates within your link resolver, ERM, MARC records, or elsewhere. Although e-journal access on a single web page is likely to encompass all title changes, there are some vendors who use multiple web pages for the various titles. How exactly a vendor's website architecture accounts for titles changes is not always obvious, and there may be unforeseen metadata issues when title changes are not properly cataloged. Each individual journal needs to be accounted for to ensure that OpenURL links work, interlibrary loan requests are able to be filled, and OCLC holdings are updated successfully.

PRO TIP: PUBLISHER TRANSFERS

Publisher transfers are common with serials; publishers sometimes refer to the titles in question as takeover titles. Generally, there are two different scenarios that happen to a journal's content when a journal's publisher transfers. One, the content could be entirely moved to the new publisher's website. Or two, the content could straddle both the old and new publishers' websites. As we mentioned in the Pro Tip for title changes, it is very important to track/represent/catalog each publisher for the journal in question.

Some publishers are better than others about notifying their customers of impending publisher transfers. Your subscription agent should include notifications of publisher transfers in your annual renewal. Projected dates for publisher transfers can vary and often drag out into several months, meaning that the journal content in question may be only accessible at its previous publisher's site until the transition to the new publisher's site has been completed. The best way to handle this extended wait period is to create alerts for yourself on a title-by-title basis and to follow up on the title's cataloging until the transition has been completed.

So how do you begin checking that online access is correct for the library's resources? First, you will need to retrieve title lists from your vendors, if you do not already have this information elsewhere. Many times, title lists are available within your sub-agent's or vendor's administration portal. Access title lists are generally applicable to e-book or e-journal packages and subscriptions. A title list should include:

- Coverage dates of the subscription
- Title information such as ISSNs or ISBNs
- All title changes to journal content. Be careful about taking title lists from vendors at face value. Some vendors only list the current title for a journal with coverage dates going back to volume one, despite the journal having different titles in the past. You may need to consult OCLC journal records to determine what years of access to assign to what title.
- Perpetual access, where applicable. Most vendors do not explicitly label perpetual access on title lists; however, they may list out your current subscription coverage dates on one line in the title list, as well as an individual line for each year that you subscribed, denoting perpetual access. In the example title list in Figure 5.4, the library has a current subscription to the *Journal of Education* and has perpetual access to the years 2015–2017.

Obtaining a title list of your perpetual access titles from vendors may not be easy, and what the vendors provide varies greatly. One vendor may give you a title list with no dates, while another may give you a list with just the journal's most recent title, leaving it up to you to backtrack years of access for different titles if changes have occurred. Acquisitions data from your ILS, actual invoices, or even subscription agent data may be able to fill in the gaps of what titles you paid for and for what years. If you discover that you are indeed missing access, contact the vendor with the appropriate information, such as rel-

ABC Vendor Title List Report	
11/27/2017	
Title	Year
Journal of ABC Education	1997-present
Journal of ABC Education	Jan. 1- Dec. 31 2015
Journal of ABC Education	Jan. 1- Dec. 31 2016
Journal of ABC Education	Jan. 1- Dec. 31 2017

Figure 5.4. Sample list showing current subscription and perpetual access

evant invoices or license agreements, as necessary. Be sure to also follow up periodically. Sometimes it takes several e-mails to the vendor before the missing access is restored.

We recommend you work through all of your access lists at regular intervals, as time and personnel resources allow. Remember to use your energy wisely. If you are low on time or personnel, try spot-checking around 20 percent of the titles on a given list to see if there are any issues, and then follow up with title-by-title checks as necessary. Alternatively, you could focus on your top vendors, who represent the majority of your electronic content.

Certainly, when you begin a new position, it may be beneficial for you to run through your holdings. While this will take a great amount of time, it is invaluable for acclimating yourself to what resources are available and from what vendors. Otherwise, the timeframe at which you recheck a list is up to you. Depending on the resource type, the frequency at which you check your online access may vary greatly. For instance, online e-journal packages often need to be checked less frequently than individual subscriptions managed via a sub-agent. Sub-agent lists, however, should be checked annually to ensure mistakes were not made regarding new and cancelled subscriptions.

For static journal packages (packages whose contents do not update), you will likely need to do fewer and less frequent access checks. Often, glancing over the total number of titles in the title list in comparison to the number of the package titles available in your holdings management system will be sufficient. However, if your holdings only reflect a fraction of the title list, you will need to investigate further.

PRO TIP: TRIGGERING IP BLOCKS WITH ACCESS CHECKS

As you are physically clicking through each e-resource, which may, for example, require opening individual PDFs, you may trigger an IP address block with the vendor. This is just something to be aware of, and it can be addressed by phoning vendors (quickest resolution method) to alert them to the issue. You may ask them if they know what initiates a trigger, so that you can try to mitigate the issue in the future. Additionally, they may offer to exclude your IP address from being blocked given your role as a librarian.

Perpetual Access Archives

Preservation initiatives exist to ensure indefinite archival access to electronic content in the event that the content is no longer available on a vendor website. Each initiative operates in different ways with varying levels of archival storage and definitions of when participants can access the archived content. They also require varying levels of financial and technical involvement from participating libraries. Some examples include LOCKSS, CLOCKSS, and Portico. The Keeper's Registry is an online index for the archiving activities of e-journals. Within the registry, you can search by an individual journal title to see which preservation initiative has archived which years of journal content (EDINA, 2017). If your library is not currently a member of a preservation initiative, discuss the possibility with library leadership and collection development staff. They can help weigh the benefits of access against the potential financial cost or technical commitment.

SUBSCRIPTION MAINTENANCE CHECKLIST

- ☐ Is the resource cataloged in appropriate systems?
  - ◦ ERM
  - ◦ Link Resolver
  - ◦ MARC Record
  - ◦ Database List
  - ◦ Research Guides
  - ◦ Other
- ☐ Where are we paying to access the resource? Is this the link we've cataloged?
- ☐ Do we have access to the site?
- ☐ What are the coverage dates for the resource?
- ☐ Do we have access to those dates?
- ☐ Is the resource included in the EZproxy config?
- ☐ Have we registered all necessary items at the resource's admin portal?
- ☐ Check links in appropriate systems to ensure access.
  - ◦ ERM
  - ◦ Link Resolver
  - ◦ MARC Record
  - ◦ Database List
  - ◦ Research Guides
  - ◦ Other
- ☐ For perpetual access: edit coverage dates in appropriate systems to reflect perpetual access. Add notes in appropriate systems.
  - ◦ ERM
  - ◦ Link Resolver
  - ◦ MARC Record
  - ◦ Database List
  - ◦ Research Guides
  - ◦ Acquisitions ILS Module
  - ◦ Other

Key Points

- Soliciting help tickets is important for finding and fixing access issues.
- Use the 4W1H (who, what, where, when, and how) to get relevant information for recreating and diagnosing access issues.
- Breakdowns in different parts in the access chain will result in particular symptoms, which can be useful for diagnosing an access issue.
- Be sure to follow up with the help ticket submitter, even if the access issue is not urgent. It is a good opportunity to educate and follow up on additional questions or needs.
- For widespread access issues, keep people informed by posting an announcement to relevant outlets, including in an e-mail, to an announcement board, or on the library website.
- Schedule regular access checks for your resources; different vendors and resources will need different maintenance schedules. Beyond these scheduled checks, pay attention to the help tickets you receive that report lost access to certain resources. After an investigation, you may discover more issues than initially realized.

References

EDINA. "The Keeper's Registry." Accessed November 12, 2017. https://thekeepers.org/.

Hart, Katherine, and Tammy Sugarman. "Developing an Interdepartmental Training Program for E-Resources Troubleshooting." *Serials Librarian* 71, no. 1 (2016): 25–38.

Regan, Shannon. "Strategies for Expanding E-Journal Preservation." *Serials Librarian* 70, no. 1–4 (2016): 89–99.

Additional Readings and Resources

Ashmore, Beth, and David Macaulay. "Troubleshooting Electronic Resources with ILL Data." *Serials Librarian* 70, no. 1–4 (2016): 288–94.

Bulock, Chris. "Techniques for Tracking Perpetual Access." *Serials Librarian* 68, no. 1–4 (2015): 290–98.

Davis, Susan, Teresa Malinowski, Eve Davis, Dustin MacIver, Tina Currado, and Lisa Spagnolo. "Who Ya Gonna Call? Troubleshooting Strategies for E-resources Access Problems." *Serials Librarian* 62, no. 1–4 (2012): 24–32.

Grissom, Andrew R., Steven A. Knowlton, and Rachel Elizabeth Scott. "Notes on Operations: Perpetual Access Information in Serials Holdings Records." *Library Resources & Technical Services* 61, no. 1 (January 2017): 57–62.

Mering, Margaret. "Preserving Electronic Scholarship for the Future: An Overview of LOCKSS, CLOCKSS, Portico, CHORUS, and the Keepers Registry." *Serials Review* 41, no. 4 (October 2015): 260–65.

Ogier, Andrea Lynn, Michael W. Sechler, and Althea Aschmann. "Teaching Wild Horses to Sing: Managing the Deluge of Electronic Serials." *Serials Librarian* 64, no. 1–4 (2013): 99–104.

CHAPTER 6

Licensing

IN THIS CHAPTER

- Defining a license
- Describing the parts of a license
- Evaluating a license
- Creating a licensing checklist
- Negotiating a license

LICENSES AND USE AGREEMENTS ARE AN INTEGRAL PART of electronic resource work. Unlike physical items, which adhere to the first sale doctrine, libraries generally do not have free rein over an e-resource once money changes hands. Instead, e-resource use is typically governed by a license or written use agreement, which outlines who can use the resource, where, and for how long, as well as what can or cannot be done with it. As an e-resources librarian, you will need to be aware of the contents of your licenses to be able to interpret them to others, including patrons, staff members, and library management. You may also be called upon to negotiate new licenses or help make policy decisions regarding e-resource acquisition, access, and use. Therefore, it is very important to have a firm grasp on licensing basics.

FIRST SALE DOCTRINE (17 U.S.C. § 109)

The "first sale" doctrine states that an individual (or institution) has the right to "sell, display, or otherwise dispose of" a copy of a work which he or she has legally obtained, according to the United States Department of Justice from 1997. Based on this doctrine, libraries are able to circulate physical materials, such as books, magazines, and movies, to their patrons without running afoul of copyright law. However, the first sale doctrine typically does not apply to electronic materials, such as e-books or music-based MP3s. This is because even if an owner has legally purchased a PDF article, any further distribution of the article would involve sending a copy of the legally purchased copy, and the "first sale" doctrine does not protect "unauthorized reproductions of copyrighted materials" (United States Department of Justice, 1997). To avoid this legal quagmire, most libraries choose to license their electronic materials from the publisher or vendor.

DISCLAIMER

As I am sure you are aware, neither of us, the authors, are lawyers. The explanations and discussions contained within this chapter are meant for your general information and should not be taken as legal advice. We highly suggest you consult with a certified lawyer if you need help regarding your licenses, legal contracts, or disputes.

You may be able to find further support with various offices on your campus, such as your institution's office of general counsel, which may be able to assist with legal issues such as indemnification, warranties, and intellectual property. Your campus procurement office may have experience with contracts and negotiation as well.

What Is a License?

A license is a binding legal contract between two or more parties in which one party is granted the right to use something or perform some sort of activity. In the context of electronic resource management, licenses are used to grant a library and its patrons the right to access copyrighted works (e-books, e-journals, online videos, etc.) and perform certain activities with them, such as printing, downloading, loaning, and more. In addition, a license outlines the roles and responsibilities of each party and describes what constitutes a breach of contract and what remedies are available should a disagreement arise.

It is important to note that a license supersedes both copyright law and the fair use doctrine. As Claire Dygert and Heather Barrett explain, "License agreements are governed by contract law; the most important thing to know is that contract terms take precedence over existing rights and exceptions provided by copyright law" (Dygert and

Barrett, 2016: 334). This means any limitations put in place by the contract take precedence over any use that may have otherwise been allowed under the fair use doctrine.

Parts of a License

Licenses can vary greatly from vendor to vendor but generally contain the following parts:

Definitions

Appearing at the beginning of the license, this section explicitly defines the terminology used throughout the agreement. For instance, this section may define terms such as "commercial use," "educational purposes," or "reasonable amount" to remove any ambiguity in meaning which could lead to confusion or disagreements in the future.

Most importantly, this section defines who constitutes "Authorized Users," or who is legally permitted to access the licensed content. You will want to be sure all of your patrons are represented in this definition. Depending on your library and its policies, this may include:

- Current library cardholders
- Current faculty and students
- Current library/institutional staff members
- Remote or online-only patrons
- Walk-in patrons
- Alumni
- Contractors with access to the library's networks

Permitted Uses

This section states the exact uses to which the licensed content can be put. Again, what permitted uses you want included in the license will vary depending on your library, its goals, and its policies. The uses will also differ depending on the type of content you are licensing. After all, patrons will use an article database much differently than a dataset or online video archive. Common examples of permitted uses include:

- Printing, downloading, and displaying the content
- Digitally copying the content
- Loaning the content to other libraries (interlibrary loan)
- Sharing the content with professional colleagues unaffiliated with the library or institution (scholarly sharing)
- Placing the content on electronic reserve
- Including the content in course packs
- Archiving the content
- Text mining, data mining, or otherwise analyzing the content

Restricted Uses

Licenses also contain a section which explicitly states the actions Authorized Users are forbidden from performing. You should read this section closely, as there may be some

items, such as interlibrary loan or electronic reserve, that you may want to negotiate into the permitted uses section. Common restrictions include:

- Altering or adapting the content
- Selling, reselling, or otherwise making money from the content (commercial use)
- Displaying or distributing the content on an unsecured (i.e., openly accessible) network
- Removing or obscuring copyright notices
- Using spider or crawler programs to mass-download the content

Responsibilities, Liabilities, and Remedies

The majority of the license outlines the roles and responsibilities of each party and the means for and limits on resolving a perceived breach of those responsibilities. Responsibilities of the vendor typically concern providing accurate, timely, and consistent access to the licensed resource (as the content is usually hosted on a vendor's servers). In addition, vendors may provide guarantees or warranty statements that they have the right to license the content to others. On the licensee's end, the library takes responsibility for things like timely payment, advanced notice of cancellation, and reasonable efforts to inform patrons of permissible and restricted content use. You want to be sure you have read and understood each of the library's responsibilities since your institution will be on the hook if any of them are not met. And remember, a license is not a static, take-it-or-leave-it document. Responsibilities that your library is unwilling or unable to take on—for instance, a promise to not disclose pricing or terms—can potentially be modified or negotiated out.

If either party perceives a breach of contract, the license also outlines what remedies are available. This section includes clauses about:

Limitation of liabilities: a cap on the amount of money payable for damages.

Indemnity: exemptions from legal responsibility for certain actions.

Time limits: for curing a breach of contract.

Methods for dispute resolution: using a mediator versus going to court.

Governing law: which state's law the contract will be interpreted under and where disputes will be resolved.

Government funds: public institutions or institutions which receive government funds, such as a public or university library, may be restricted in terms of which clauses you can accept. For instance, under current state law, public university libraries in Texas cannot agree to dispute resolution by mediation nor can they accept a governing law outside of Texas. You want to be certain the license reflects these requirements.

Term and Termination

Licenses, especially subscription licenses, should describe when the service term commences and under what circumstances the service term shall end. The start date is generally straightforward, with a precise month, day, and year listed at either the beginning of the contract or in an addendum at the end. The termination date, however, can be a bit more complicated.

Licenses spell out several ways service can be terminated. The simplest is with the cancellation or non-renewal of the resource at the end of an agreed-upon term. You will

want to make a note of any specified timeframes, such as thirty or sixty days advanced notice, to avoid renewing the service by default. Licenses may also give conditions for early termination, such as paying penalty fees. Additionally, licenses contain clauses about termination due to a breach of contract, bankruptcy, dissolution of the vendor or library, as well as force majeure, which is defined as circumstances beyond the control of either party, such as natural disasters, war, or terror attacks.

Ideally, your licenses will make provisions for what happens to the content after the service term has ended. For instance, some vendors provide perpetual online access to purchased content, so long as the library continues to pay a small annual hosting fee. Others agree to send the library an archival copy of the content or make it available through a third-party dark archive (such as LOCKSS or CLOCKSS) if the vendor ever closes shop. Depending on your institution and the resource in question, these provisions may be vitally important or completely unnecessary. Be sure to check your institution's collection development policies and goals.

Content, Access, and Fees

Licenses also contain details about what is being licensed, how that content can be accessed, and what fees must be paid to the vendor to receive this access. Often, this information is set off in addendums at the end of the contract, making it easy to add and subtract content or alter the access model without having to renegotiate the main body of the license. When looking at this section, you want to be certain the following are correct:

- Content (package name, title list, embargoes, etc.)
- Purchasing model (purchase, subscription, DDA, PDA, etc.), including subscription term (if applicable) and number of concurrent users
- Authentication/access method (username/password, IP, proxy, etc.)
- Price, which may include limits on annual increases (e.g., no more than 5 percent per year)
- Perpetual access

Signatures

At the end of the license is a space for signatures. Once the contract is signed, it is considered legally binding. Depending on your institution and the amount of money involved, the license may require a signature from someone higher than you in the library hierarchy, such as a department head, dean, or library director; it may even need the signature from someone outside of the library, such as the CFO or a representative from legal affairs. Learn your institution's rules and procedures up front, and be sure to establish open channels of communication with all the involved parties. This way, licenses get signed and returned in a timely manner.

Clauses to Keep an Eye On

Now that we have established the major components of a license, let's delve a little further into a few specific clauses which tend to cause confusion and concern.

Warranties and Representations

Warranties are legal guarantees or promises. If a warranty proves false (i.e., the promise is broken), the guarantor could be on the hook to provide financial compensation to the other party. In a license, warranties can be made by both the licensor and the licensee. For instance, a vendor may (and should) warrant that it has the appropriate rights or permissions to license the electronic resource to the library. A library, on the other hand, may warrant that it has the authority to enter into a legally binding agreement with the vendor.

Libraries should be careful, however, that they do not warrant or represent anything they cannot control, such as third-party (patron) use of the resource. In addition, they should not agree to anything on behalf of third-party users. For instance, some vendors, especially vendors who deal primarily in the private business sector, may put in clauses similar to the following example:

> Licensee agrees on its own behalf and on behalf of its Authorized Users that the Licensed Materials shall not be:
>
> - Manipulated or modified without the express written consent of the Licensor
> - Displayed or distributed to any Unauthorized User
> - Used for Commercial Purposes

It is impossible for library staff to police all Authorized Users, especially walk-in patrons, to ensure none of them violate these terms. It is also unreasonable for the library to be liable for their actions. Instead, the library can agree to use "reasonable efforts" to educate their patrons on the appropriate and acceptable use of the licensed content.

Indemnification Clauses

Indemnification goes hand in hand with warranties and representations. While warranties detail the guarantees or promises made by each party, indemnification clarifies who is responsible for any expenses or damages that arise if those promises are broken. Tomas Lipinski explains it like this:

> With [an indemnity] clause, the licensor is stating that if the licensee's use of the licensed content according to the terms of the agreement is found to be infringing (where the licensor did not possess the right to make such content available for use), the licensor will defend in court and cover the licensee for any damages it incurs as a result of such a lawsuit. (*Librarian's Legal,* 2013: 463)

So, for example, the vendor may warrant that it has the appropriate rights and permissions to license the electronic resource to the library. But what if the vendor did not, in fact, have those permissions? The licensing library may get sued for infringement by the copyright holder, despite using the content in accordance with the terms laid out in the license. However, if the vendor has agreed to indemnify the library, it is the vendor—not the library—who assumes the legal and financial responsibility for the infringement. This would include things like defending the claim in court, paying attorneys' fees, and reimbursing the library for any losses or damages resulting from the lawsuit. Because of this,

as Lipinski says, "Indemnification is one of the most important provisions a license can contain. Licenses without an indemnification provision should not be signed" (*Librarian's Legal,* 2013: 463).

Some vendors desire a similar indemnification from the licensing library. They may ask, for example, that the library indemnify them against any losses or damages resulting from infringing use of the content (use that goes against the terms of the agreement) perpetrated by the library's Authorized Users. However, as with warranties, you should think twice before agreeing to anything regarding your patrons' actions. It is impossible to guarantee that patrons will always use the electronic resource appropriately, and it is unreasonable for the library to accept the legal and financial burden for their actions. You should have these types of provisions struck from the license whenever possible.

Confidentiality Clauses

Another common clause to see in licenses is a confidentiality or non-disclosure clause. Vendors use confidentiality clauses to limit the number and type of people who are privy to certain details of the contract. These details could include pricing, specific terms and conditions, or potentially the entire content of the license.

For libraries, who prize free access to information, confidentiality clauses pose many ethical and logistical problems. By law, many public institutions are unable to agree to confidentiality clauses, since they must be publicly accountable for how their funds are spent via open records requests. However, even for private institutions, a confidentiality clause is undesirable because it prevents them from openly discussing and analyzing their licenses with their constituents and the larger library community. To combat this, many private college and university libraries have established policies against signing licenses with a confidentiality clause. If you work at a private institution, we recommend adopting a similar policy. This will increase transparency both within and outside of your organization, and it will also reduce confusion among staff, as they work to understand which licenses they can talk about and which they cannot. Check out the following institutions' policies for inspiration:

Cornell University Library: https://www.library.cornell.edu/about/policies/nondisclosure

Dartmouth College Library: https://www.dartmouth.edu/~library/acq/documents/Dartmouth_College_Nondisclosure_Policy.pdf

Evaluating a License

Evaluating a license to determine how well it adheres to your institution's and users' needs is undoubtedly an important aspect of electronic resource work; however, it can be difficult to know where to begin when confronted with ten-plus pages of legalese. While licenses tend to have similar features, as we described prior, there is no set standard for what appears in a license or where, and as a result, it is easy to overlook or omit items for which you might otherwise advocate.

To keep your evaluation complete and concise, we recommend developing a framework against which you can compare your licenses. This can take a couple different forms,

but the most widely used is probably the license review checklist. With a checklist, you can literally check off all the important points you need to be addressed, including any deal breakers such as state law requirements, and easily flag items for negotiation. Checklists are also great for giving you an at-a-glance summary of a license if ever you need to revisit it down the road.

Creating a License Review Checklist

We provide an example checklist in Appendix 1 at the end of this book. We recommend checking it out for inspiration. However, every library's checklist will be different depending on its type, its constituents, and its needs. Here are some suggestions we have for modifying our example checklist or for creating your own:

Check for state law requirements: Learn about any state law requirements by speaking with your institution's legal affairs team or department head. You may also find legal requirements listed in documentation left by whoever was previously handling licenses.

Ask about institutional or library policy requirements: Gather together your library's licensing and collection development policies and discuss them with your department head, as well as other stakeholders. Conversation is the best way to understand needs, establish best practices, and fill in policy holes.

Establish preferred terms: Less strict than legal or policy requirements (which make up the "deal breakers" portion of your checklist), preferred terms are those items which you would like to see but are willing to let slide. For instance, an institution may want to use the electronic resource in course packs but would not walk away from a license should it not be included in the permitted uses. Speak with your department head, library leadership, and other stakeholders to determine what your library's preferred terms are.

Determine nonessential terms: On the flip side of preferred terms, you should also establish which terms are nonessential to your library. For instance, your library may be small and not have the budget or ability to store electronic archive copies. Similarly, your library may be unconcerned with data mining or with maintaining perpetual access to items from an expired subscription. Determining these nonessential terms now will reduce the amount of time you spend asking about these items later.

Negotiating a License

On the whole, vendors who cater specifically to libraries tend to be very receptive to feedback and write their licenses with libraries' needs specifically in mind. As a result, the licenses they slide across your desk will likely need very little modification. However, electronic resources are continually in flux, with new technologies, services, and vendors emerging every day. And that means chances are good you will run into a situation requiring negotiation at some point during your career.

While license negotiation is a skill honed over years of practice, taking a proactive approach to the process and practicing a few simple techniques can help you enter into a negotiation with confidence (or at least fewer nerves). Below, we outline a few negotiation tactics that we have found helpful over the years and that will help make your own negotiations a success.

Negotiation Tactics

Just Ask: Vendors want your business. As a result, they are more than willing to listen to requests, field questions, and compromise on licensing terms. Many times simply explaining your policies, positions, and desires will result in a favorable outcome. In fact, in our experience, most vendors are more than happy to make adjustments and often view such requests as an opportunity to learn more about their consumers' needs. And even if the vendor doesn't acquiesce immediately, you have at least started the negotiation conversation and are likely to leave the table with a better license than if you had never asked.

Rely on Policy: When requesting changes to a license, it is often helpful to cite your institution's policies. Institutional policies give you, the negotiator, a firm foundation on which to make your case and also clearly explain why you are asking in the first place. Policies also relieve the pressure on you personally (i.e., it is the institution who wants these changes; you are simply carrying out its will) and hopefully gives you a sense of support from your institution, regardless of what happens.

Provide New or Alternative Language: Very little of license negotiation involves striking entire clauses. Instead, you will likely be adding to or tweaking the language that already exists. Providing the vendor with the exact language you would like changed or incorporated gives you a much greater chance of attaining that favorable language in the end. We recommend keeping a document of sample clauses and approved language to save yourself the time and energy of having to rewrite sections. Some institutions even keep entire example licenses from which they can draw parts and pieces as needed. We have included some sample language in the next section along with additional licensing resources at the end of this chapter, which you can use as inspiration.

Explain Your Budget: As an electronic resources librarian, you may be called on to negotiate pricing and terms. Generally, the pricing negotiation is handled before a license is ever seen, but occasionally you may need to negotiate pricing or pricing increases when renewing a license. Just like with negotiating terms, it is helpful to be up front with the vendor about the limitations of your institution. If you are experiencing a flat, slow-growing, or decreasing budget, let the vendor know. It may be willing to waive, postpone, or reduce the increase until conditions improve.

Do Your Research: During the initial phases of the acquisitions process, you likely reached out to other libraries to learn their opinion about the electronic resource whose license you are currently negotiating. Many times this includes information about pricing or terms. If you encountered a comparable library whose terms or pricing you would like to mimic, do bring it up to the vendor. After all, if that library got an amazing deal, your library should as well. Similarly, you can cite other products, vendors, or even commonly held library practices during negotiations. Do your research, know your marketplace, and vendors will be hard-pressed to say no.

Sample Language

As we mentioned earlier, keeping a document of preferred wording or sample language is a great way to save time and decrease stress during the license revision and negotiation

PRO TIP: USING MICROSOFT WORD TO EDIT LICENSE AGREEMENTS

When suggesting alternative wording to your vendor, use the Track Changes feature in Microsoft Word. Track Changes allows for the vendor to readily see what changes were made while saving the vendor's original language. Additionally, we recommend using the Comments feature to add explanations alongside the changes about how the suggested text represents your preferred terms.

process. The following sample language is drawn from various respected library licensing guides, which are also listed in the References section of this chapter.

Governing Law

> Governing Law. This Agreement shall be interpreted and construed according to, and governed by, the laws of [enter venue convenient to Licensor and Licensee], without regard to its conflict of laws rules. The federal or state courts located in [enter venue convenient to Licensor and Licensee] shall have jurisdiction to hear any dispute under this Agreement. (Liblicense: 16)

Indemnification

> The Licensor shall indemnify and hold harmless the Licensee and Authorized Users for any losses, claims, damages, awards, penalties, or injuries incurred, including reasonable attorney's fees, that arise from any third-party claim that alleges copyright infringement or other intellectual property infringement arising from the use of the Licensed Materials by the Licensee or any Authorized User. NO LIMITATION OF LIABILITY SET FORTH ELSEWHERE IN THIS AGREEMENT IS APPLICABLE TO THIS INDEMNIFICATION. This Section ____ shall survive the termination of this Agreement. (California Digital Library: 13)

Interlibrary Loan

> Licensee may supply through interlibrary loan a copy of an individual document being part of the Licensed Materials by post, fax or secure electronic transmission for the purposes of non-commercial use. Specifically, copies may be made in compliance with Section 108 of the U.S. Copyright Act. (Florida Virtual Campus: 4)

Wait Periods, Deal Breakers, and Walking Away

Responsible license negotiation must include proactively planning for all possibilities. While you should always enter negotiations with a positive outcome in mind, negative circumstances can sometimes occur with little forewarning. Despite your best efforts, disagreements between vendors and libraries can delay or even prohibit a resource from being licensed.

For instance, back-and-forth negotiations with vendors generally resolve within a reasonable time period; however, you may have a situation arise where your patrons are denied access to a resource for an extended amount of time because negotiations are not

going smoothly. It is important to discuss such negative hypothetical situations with your leadership team ahead of time, especially if your leadership is unfamiliar with licensing e-resources. Familiarize leadership with the realities of what a three- to six-month wait period would look like for your patrons and your library coworkers and brainstorm ways in which the library can address any resulting dissatisfaction. All library staff should present a united front regarding when and how to discuss the extended wait period with patrons.

You should also discuss with your leadership the institution's deal breakers and the realities of walking away from the negotiation process if the vendor is unable to accommodate your needs. Some example deal breakers could include:

- Governing law outside of your state
- Prohibiting ILL
- Indemnifying only the vendor and not your library
- Prohibiting course reserves
- Annual increases over a certain percentage
- Verbally agreed-upon discounts or pricing missing in the license
- Holding the library accountable for the actions of third-party users
- Vendor not providing usage statistics

As we mentioned before, preferred licensing terms will vary from library to library. The above examples will be met with varying degrees of agreement from licensors at different institutions. Change in licensor responsibility, campus legal involvement, historical practices, and other factors all play into how your leadership may direct you to prioritize various terms. Walking away from a potential acquisition can be frustrating for patrons who do not readily understand the licensing process or what repercussions can occur from unfavorable license terms. As with a long wait period to obtain a resource, library staff should maintain a united front on when and how to discuss walking away from a license with patrons.

In certain extenuating circumstances, such as when a potential resource's primary advocate carries institutional clout, you could be directed by leadership to proceed with a license that does not include your preferred terms. Whether or not you agree with your leadership's direction, your responsibility is to maintain an open line of communication to alert the leadership of what compromises are being made with the final contract.

Physical and Electronic License Organization

Even after a license has been signed, officially entering your library into the contract agreement, this is not the last you will use the license. Likely, you will need to reference your licenses frequently to verify various permitted uses, both for yourself and your library coworkers, such as regarding ILL and course reserves. It is also beneficial to have your licenses organized, so you are prepared when you re-negotiate a contract. After all, you will want to examine previous contracts to better understand the vendor's practices and concerns.

License organization can be a daunting project to undertake, but the benefits of having the information easily accessible outweigh the costs. You likely have a mixture of

PRO TIP: DIGITIZING YOUR LICENSES VIA OCR

OCR, or optical character recognition, is "a process by which characters typed or printed on a page are electronically scanned, analyzed, and, if found recognizable on the basis of appearance, converted into a digital character code capable of being processed by a computer" (Reitz, 2013). This means taking a scanned image, such as that of a digital license, and converting the picture into a full-text searchable document. Some software, such as Adobe Acrobat, may be able to automatically do this, although the results will depend on the quality of your original document. Additionally, you can check with your ILL or other departments within your library to see what scanners and OCR software they have available.

paper and electronic files at your library, pseudo-organized by resource. We recommend breaking the project into digestible chunks and starting with the vendors who represent the majority of your resources. If you have limited time to devote to the project, these vendors will make the greatest impact.

While most of the licenses you will encounter going forward will be in electronic format, you might want to consider digitizing your historical paper licenses. This way, all your licenses are easily accessible, transferable, and, potentially, full-text searchable. Of course, if you do decide to digitize your licenses, it is probably still best to retain paper copies for archival purposes.

When naming your licensing files, be sure to use a meaningful naming convention, one which will show you the license details at a glance. The notes in the naming convention provide space for additional information, such as acronyms, popular names, or if it is a consortial resource. We are fond of the following system: VendorName(Note)-ResourceName(Note)-YearSigned(Note).pdf.

We also recommend following a similar naming convention for organizing your paper licenses. In this system, we organize our paper licenses by vendor and then by resource. See Figure 6.1.

We place the resource's documents, including paper licenses, within an individual manila folder which has been labeled with the resource's name. The manila folder is then

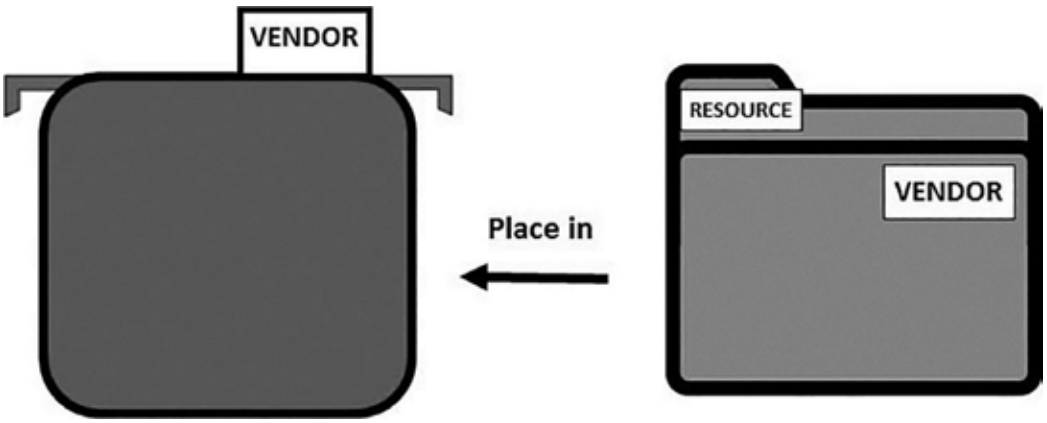


Figure 6.1. Sample folder filing system

placed in a hanging folder, which has been labeled with the vendor's name. Each hanging folder may contain multiple resources, just as a vendor may license multiple resources. For easy re-filing, we also label the manila folders with the vendors name in one corner. This method:

- Allows you to see at a glance what resources you have with what vendor
- Facilitates easy updates when resources change vendors
- Negates the need for duplicate licenses, which would otherwise be necessary when filing by resource

Developing Relationship between Libraries and Vendors

As e-resources continue to grow in prominence, license negotiation becomes even more important to the future success of libraries. As an e-resources librarian, you will be responsible for conducting business negotiations while remaining respectful and considerate of the vendor's position and needs. At the same time, libraries have a responsibility to provide feedback to vendors in order to shape the market in favor of libraries in the future. We recommend you continue to educate yourself beyond what was covered in this chapter by checking out the resources we have listed at the end of this chapter.

Key Points

- A license determines how a resource can legally be used by your library and its patrons.
- The terms contained within a license vary from vendor to vendor and can be negotiated.
- Determine your institution's deal breakers and preferred terms before entering into negotiations.
- Stay calm, professional, and, above all, flexible during the negotiation process. Be sure to ask for what you want. Many vendors are more than willing to work with libraries to reach favorable terms.
- License supersedes copyright and fair use.
- Keep your leadership, coworkers, or other key stakeholders informed throughout the negotiation process, as appropriate.
- A license organization project can help familiarize you with your institution's resources and common licensing language and help prepare you for future information requests from your license terms.
- Organize your licenses meaningfully because you will refer to them in the future.

References

California Digital Library. "Standard License Agreement." Toolkit, last modified September 17, 2017. http://www.cdlib.org/services/collections/toolkit/.

Dygert, Claire, and Heather Barrett. "Building Your Licensing and Negotiation Skills Toolkit." *Serials Librarian*, 70, no. 1–4, 333–42.

Florida Virtual Campus. "Complete Florida Plus Guidelines for E-resource License Agreements." General Licensing Guidelines. Last modified November 10, 2014. https://elicensing.flvc.org/sites/elicensing.flvc.org/files/CompleteFloridaLicensingGuidelines11-10-14.pdf.

Liblicense. "Liblicense Model License Agreement with Commentary." Model Licenses. Last modified May 2015. http://liblicense.crl.edu/wp-content/uploads/2015/05/modellicensenew2014revmay2015.pdf.

Lipinski, Tomas. *The Librarian 's Legal Companion for Licensing Information Resources and Services*. Chicago, IL: Neal-Schuman/American Library Association, 2013.

Reitz, Joan M. "Optical Character Recognition." *Online Dictionary for Library and Information Science*. Santa Barbara: ABC-CLIO, 2013. http://www.abc-clio.com/ODLIS/searchODLIS.aspx.

United States Department of Justice. "Copyright Infringement—First Sale Doctrine." U.S. Attorney's Manual, sec. 1854. Last modified 1997. https://www.justice.gov/usam/criminal-resource-manual-1854-copyright-infringement-first-sale-doctrine.

Additional Readings and Resources

Albitz, Becky, Bob Boissy, and Tracy L. Thompson-Przylucki. "The Black, White, and Gray Areas of Licensing: A Review and Update for Librarians and Publishers." ALCTS Webcast, recorded February 29, 2012. http://www.ala.org/alcts/confevents/upcoming/webinar/022912.

Brown, Abbie. "ALCTS Webcast Negotiation of E-Resource Licensing & Pricing Terms." ALCTS Webcast, recorded May 7, 2014. http://www.ala.org/alcts/confevents/upcoming/webinar/050714.

Duggan, Lori, Christina Geuther, Corey Halaychik, and Nancy Hampton. "Adventures in Licensing! How Librarians Are Embracing and Affecting Change in Electronic Resources Licensing." *Serials Librarian* 72, no. 1–4 (2017): 118–21.

Dygert, Claire, and Jeanne M. Langendorfer. "Fundamentals of E-Resource Licensing." *Serials Librarian* 66, no. 1–4 (2014): 289–97.

Emery, Jill, and Graham Stone. "Acquisition of New Content." *Library Technology Reports* 49, no. 2 (February 2013): 16–20.

Hiatt, C. Derrik, Lesley Jackson, and Katherine Hill. "Principles of Negotiation." *Serials Review* 41, no. 3 (2015): 180–83.

Regan, Shannon. "Lassoing the Licensing Beast: How Electronic Resources Librarians Can Build Competency and Advocate for Wrangling Electronic Content Licensing." *Serials Librarian* 68, no. 1–4 (2015): 318–24.

Smith, Jane, and Eric Hartnett. "The Licensing Lifecycle: From Negotiation to Compliance." *Serials Librarian* 68, no. 1–4 (2015): 205–14.

CHAPTER 7

Usage Statistics and Collection Assessment

IN THIS CHAPTER

- ▷ Finding usage statistics
- ▷ Defining COUNTER versus non-COUNTER usage statistics
- ▷ Calculating CPU
- ▷ Explaining the effects of discovery on usage
- ▷ Showing demonstrated need through turnaways and ILL
- ▷ Making narratives for quantitative data

THE EARLY 2000S IN THE UNITED STATES were a tumultuous time for libraries. The rise of the Internet and associated services such as Google and Wikipedia were radically changing the way people sought out and interacted with information, while a depressed economy and, eventually, the financial crisis in 2008 had libraries scrambling to prove their worth to stakeholders intent on tightening monetary belts. For academic libraries in particular, electronic resources were beginning to take over the materials budget, accounting for over half of all acquisitions spending by 2007 and reaching over 70 percent of acquisitions spending by 2014 (Kyrillidou and Bland, 2009; Publishers Communication Group, 2016). With such conditions at play, it is no wonder that the early 2000s also brought a renewed interest in collection assessment, emphasizing the need to increase efficiency, provide accountability, and show value to the community.

Today, electronic resources make up one of the biggest pieces in libraries' collection assessment and development strategies. In this chapter, we discuss the ways in which e-resources are evaluated quantitatively (we have saved qualitative assessment

for Chapter 8) and address ways that libraries construct compelling narratives around resources to educate others about their value and use.

Show Me the Numbers

Electronic media are great at tracking user behavior. A single website can tell where you came from, what you did, how long you were there, and when you left—and then report this behavior to its webmaster in the form of usage statistics and logs. A library's electronic resources have similar capabilities, and it often falls to the e-resources librarian to collect, synthesize, and compare these data points to make informed collection development decisions.

Usage Statistics: What They Are and Where to Find Them

Usage statistics are perhaps the most compelling and widely used data points for electronic resources. With usage statistics, librarians can count the number of times certain user behaviors occurred, such as the number of unique visitors, article downloads, or turnaways. Usage statistics can be gathered at multiple points along the access chain, including the library's website, catalog, discovery layer, or authentication method (e.g., EZproxy logs). While this information is important and can be used to enlighten researchers about user behavior, to evaluate an e-resource for collection development purposes we generally use statistics gathered from the e-resource itself. This means relying on the e-resource vendor to accurately collect and report the data.

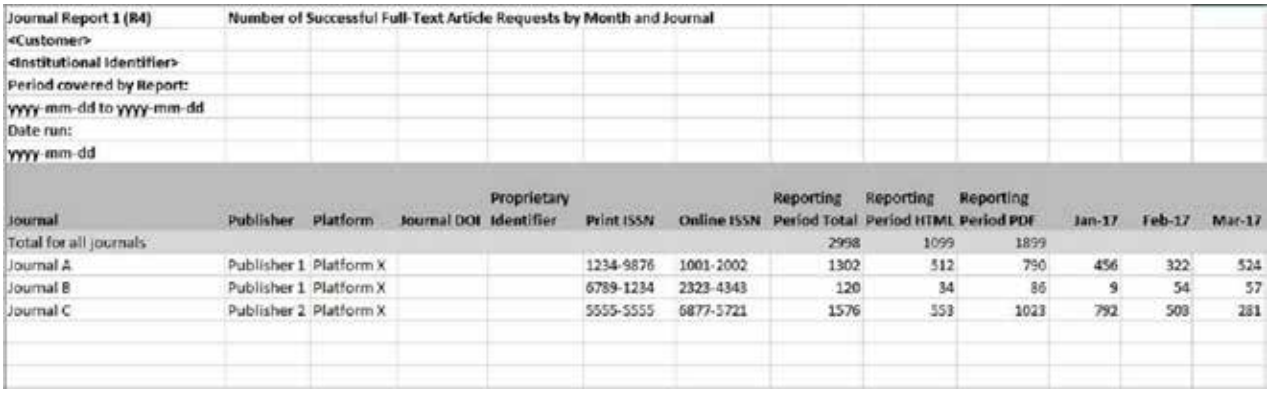
COUNTER Usage Reports

Since it is the vendor, not the library, who is responsible for collecting usage statistics from the e-resource, it is important for the library to understand how that vendor accounts for usage. This is especially true if the library is intending to compare usage across multiple vendors. Back in the 1990s to early 2000s, vendors were very inconsistent with how they collected and reported usage statistics. Some vendors, for instance, counted usage only on views or downloads of an article's full-text, while others included hits to an article's abstract or table of contents, resulting in inflated statistics (Stemper and Jaguszewski, 2003). Fortunately, since then a set of standards has been developed and adopted by many of the major library vendors.

In 2002, the nonprofit organization Project COUNTER (Counting Online Usage of Networked Electronic Resources) launched its first "Code of Practice," which it had developed in collaboration with libraries, publishers, and content providers. The Code of Practice provided "guidance on data elements to be measured, definitions of these data elements, output report content and format, as well as on data processing and auditing" (Project COUNTER, 2016). Now in its fourth iteration, with the fifth scheduled to be released in

PROJECT COUNTER REGISTRIES OF COMPLIANCE

To view the full list of COUNTER-compliant vendors, visit Project COUNTER's Registries of Compliance at https://www.projectcounter.org/about/register/.



Journal Report 1 (R4)	Number of Successful Full-Text Article Requests by Month and Journal											
<Customer>												
<Institutional Identifier>												
Period covered by Report:												
yyyy-mm-dd to yyyy-mm-dd												
Date run:												
yyyy-mm-dd												
Journal	Publisher	Platform	Journal DOI	Proprietary Identifier	Print ISSN	Online ISSN	Reporting Period Total	Reporting Period HTML	Reporting Period PDF	Jan-17	Feb-17	Mar-17
Total for all journals							2958	1099	1899			
Journal A	Publisher 1	Platform X			1234-9876	1001-2002	1302	512	790	456	322	524
Journal B	Publisher 1	Platform X			6789-1234	2323-4343	120	34	86	9	54	57
Journal C	Publisher 2	Platform X			5555-5555	6877-5721	1576	553	1023	792	509	281

Figure 7.1. Sample JR1 COUNTER report from a vendor

January 2019, the COUNTER Code of Practice has been adopted by over one hundred entities and platforms, including major vendors such as EBSCO, Elsevier, Gale, and more.

Vendors who wish to register as being COUNTER compliant must undergo an independent audit process to prove they collect and disseminate their usage data according to the COUNTER Code of Practice. In this way, libraries know when they compare usage statistics from two COUNTER-compliant vendors that they are indeed comparing similar types of numbers.

At the time of this writing, vendors can generate six types of COUNTER reports based upon their e-resource's content type:

- Journal reports
- Database reports
- Book reports
- Platform reports
- Multimedia reports
- Title reports

Each of these report types is further subdivided into numbers based on the kind of user behavior being recorded. For instance, Journal Report 1 (JR1) records the number of successful full-text article requests, while Journal Report 2 (JR2) records the number of denied requests for full-text articles. To be considered COUNTER compliant, vendors must provide certain reports, like the JR1 and JR2 for e-journal vendors, to their subscribers. However, other reports are considered optional. Please refer to the Project COUNTER website for the full list of reports, their descriptions, and whether they are considered standard (required) or optional.

Non-COUNTER Usage Reports

While many of the major library vendors are COUNTER compliant, smaller vendors and vendors who do not count libraries among their primary consumer base often do not have the time, resources, or inclination to provide COUNTER-compliant usage data. Likely these vendors will still offer some form of usage report, but these numbers may need to be taken with a grain of salt, especially if you do not know the details of how that usage was collected. However, these numbers can still offer insight into the usage of a resource.

Collecting Usage Reports

Usage reports can be gathered in a number of ways. Many major vendors make usage reports available via their administration portals. The portals, which allow libraries to view and update various aspects of their subscriptions, such as IP ranges, title lists, and branding, generally have a module dedicated to downloading usage statistics. Often, the portals will allow the librarian to select the date ranges, report types (e.g., JR1, DB1, or non-COUNTER), and electronic file type (e.g., xls, txt, or csv) to be downloaded. The librarian can then store the file on the library's own computer network.

Some vendors prefer to provide usage statistics via e-mail. This can either be upon request or via an automated system, which sends out the usage statistics weekly, monthly, yearly, or some other designated time period. Similarly, some vendors have the ability to send usage statistics directly to a library's computer server or ERM by using a computer protocol known as the Standardized Usage Statistics Harvesting Initiative (SUSHI). SUSHI automates the data collection process, eliminating the need for librarians to collect usage statistics by hand. However, SUSHI does require its administrators to be very familiar with computer servers and systems, and as a result, it is only a realistic option if your library has either invested in an ERM or has hired qualified systems personnel to set up and run a SUSHI client server.

Analyzing Your Data

Good collection development practices dictate that librarians consider both quantitative and qualitative data when assessing their collection. Qualitative data points, which we will discuss more in-depth in the next chapter, are important for providing context and dimension to the crunching of raw numbers. They include considerations such as:

- Is this resource owned by your library's peer institutions (i.e., competitors)?
- Is this resource needed for program accreditations?
- Does this resource support your institution's curriculum?
- Does this resource contain unique content that cannot be obtained through another, cheaper resource?
- How usable is the resource? Does it comply with ADA standards?

Yet despite the common sense of pursuing this best practice, libraries often rely solely on usage numbers for resource evaluation—especially when flat or decreasing budgets force their library administration to focus on the bottom line. As we walk through the analysis of usage numbers, please keep these qualitative data points in mind. When combined with raw usage data, they make for compelling insights into the library, its collections, and the needs of those who use them.

Cost Per Use

Cost per use (CPU) is the most widely used metric for evaluating e-resources and for determining a library's return on investment (ROI) for a given resource. CPU is calculated by taking the cost of a resource, usually the annual subscription rate, and dividing it by

the number of uses. For instance, if a library paid $200 for a journal subscription in 2017 and that journal was accessed fifty-nine times throughout the year, the CPU would be $200 / 59 = $3.39. This means one use of that journal cost the library $3.39. Resources with high use, low cost, and low CPU are generally considered to have good ROI. When analyzing CPU, be sure to consider multiple years of CPU versus a single year by itself to capture any price or usage fluctuations.

However, there are many caveats to using CPU to make collection development decisions. For instance, there is no overall standard for what is considered "high-use" versus "low-use" CPU; it varies from library to library and from patron group to patron group. Here is an example of high-use CPU, which upon further investigation is actually being heavily used by patrons:

STEM e-journal costs $25,000 in 2018

200 article downloads in 2018

$25,000 / 200 = $125 CPU

Because some libraries consider $50 to $100 to be high-use CPU for their resources, this STEM e-journal would have initially been identified as having high-use CPU. However, 200 article downloads is very significant, and, depending on the cost of the e-journal's interlibrary loan transactions, a subscription may not be much more expensive than potential ILL costs.

Terry Bucknell provides a comprehensive overview of other such factors that may prevent librarians from taking CPU at face value:

- Mysterious spikes in usage
- Publisher changes
- Title changes
- Group titles, where one ISSN or "fake" ISSNs are used for all titles
- Variations in usage behaviors within certain disciplines or resource types
- Availability of an item in multiple formats within the same vendor platform

The last bullet point, specifically the availability of both HTML and PDF article formats, is a major cause of inflated e-journal usage. Some vendor platforms take patrons to a landing page where patrons select to access an article in either its HTML or PDF format. However, other vendors take patrons directly into the HTML article format upon selecting the article link from the library's discovery layer or aggregator database. Patrons can select to view the PDF article if they wish, but they have automatically registered an HTML use as well. The purpose of this landing page design is debated; as Bucknell states, "Perhaps publishers design their sites for maximum convenience to the user, but the more cynical might suggest that publishers deliberately design their sites this way to inflate their usage statistics" (Bucknell, 2012: 194). Fortunately, this and other usage inflation issues will be addressed in the fifth release of the COUNTER Code of Practice.

We mention these technological issues in regards to CPU not to pressure you or make you feel as though you need to analyze and correct every discrepancy you encounter. We simply recommend keeping these caveats in the back of your mind when considering CPU, since

these numbers are not always what they seem. However, if you do feel the need to course correct, there are some measures you can take to edit questionable COUNTER data, such as:

Suspected inflation of e-journal use from the availability of HTML and PDF formats: Examine the e-journal's JR1 usage coupled with its platform's features. Are patrons automatically directed to the HTML article? If so, perhaps consider using a range or average of both the HTML and PDF usage instead of their combined total. Otherwise, if the platform's landing page allows users to choose between HTML or PDF, your usage statistics are likely sound.

A spike in e-journal usage within a single month: Replace it with a range of the e-journal's usage to provide a more realistic average.

A range of months suspiciously devoid of usage (zero usage): Contact vendors; they may be able to verify a technical glitch on their part and be able to provide you with updated usage statistics.

A range of months with zero usage for an e-journal with a verified publisher or title change: Use an average of the e-journal's usage with its previous title or publisher to compensate for any zero months that may be skewing your overall CPU figures.

Demonstrated Need, Discovery Tools, and Assessment

The trend of analyzing ROI at all levels of an organization has trickled down from the corporate world into the library setting, especially within academics. To improve their ROI, some libraries have moved to requiring demonstrated need before committing to new resources. Demonstrated need can take the form of turnaway statistics, ILL requests, or any other statistic that can be considered a marker for future use of a resource. When assessing demonstrated need, it is very important to consider the discoverability of the resource in question.

Let's consider a single e-journal subscription and the various ways it may be discoverable at your library:

- Via the library's e-journal A–Z list
- Via the discovery layer, with an article-level (full-text) link—depending on whether or not the journal's article titles and full-text are indexed

PRO TIP: HOW TO FIND CONTENT INDEXED BY DISCOVERY LAYER VENDORS

Discovery layer vendors provide extensive lists of what content has been indexed and made available within their search, including at what level the content is discoverable, whether that be full-text or title level.

EDS (must be an EDS customer to view Wiki): http://support.ebsco.com/knowledge_base/detail.php?topic=&id=5754&page=1.

Primo (freely available): https://knowledge.exlibrisgroup.com/Primo_Central/Product_Documentation/Primo_Central_Indexing.

Summon (freely available): https://knowledge.exlibrisgroup.com/Summon/Product_Documentation/Overview_of_The_Summon_Service/The_Summon_Index.

- Via research guides, if included and properly linked
- Via the publisher's site from a Google search, if the patron is within campus IP ranges

Although it certainly varies on a case-by-case basis, many patrons—at times, a good majority—discover e-resources via their library's discovery layer. Therefore, whether or not resources are indexed at their article level and/or full-text level greatly affects their usage statistics and the demonstrated need for potential subscriptions.

Turnaway statistics, as recorded in COUNTER JR2, BR3, and BR4 reports, represent the number of times patrons are denied access to a resource. Because turnaways represent actual attempts at accessing a resource, they are often used by libraries to predict potential usage of a new resource. Keep in mind that turnaways are governed by discoverability. Three factors are relevant for considering how turnaways are generated:

- A turnaway can only occur if the resource in question is somehow discoverable to your patrons (e.g., indexed by your discovery layer).
- A turnaway can only be captured if the patron in question is within your institution's IP ranges, whether physically or via authentication.
- You can only readily retrieve turnaway reports for existing vendors for which you have other resources.

ILL requests are also commonly used to demonstrate the need for a resource; however, discovery plays less of a role in generating these requests, since your patrons can place an ILL request for any content they desire. In a shift from the past, many libraries now use ILL request data to inform their collection development decisions. Assessing the number of borrowing requests submitted by different patron groups (e.g., faculty, graduate students, or undergraduate students) can provide valuable information for potential subscriptions. After all, patrons who have gone to the trouble of submitting an ILL request are clearly interested in the resource.

Making Narratives for Your Data

We have just discussed the caveats of accepting usage at face value as well as the implications of various levels of resource discoverability. At times you will need to include these things when discussing the big picture of a resource with your library coworkers, faculty, or other patrons. This big picture encompasses which patrons use the resource, how they use the resource, and how they find and access the resource. Here are some common questions which library colleagues or patrons may have about usage or discovery:

Question: Why do these e-books have high usage compared to e-books from other publishers? **Answer:** Those e-books are possibly used more than those from other publishers because their full-text is indexed by our discovery layer. This means they will appear in search results if any of the keywords searched by the patron match their *or* the e-books' full-text. Our other e-books' full-text are not indexed by our discovery layer, so they are inherently happened upon less frequently.

Question: Why is this article title not appearing in our discovery layer's results? **Answer:** The article is not appearing in search results because the e-journal is not indexed by our

discovery layer. This could affect the e-journal usage since it is only discoverable via our e-journal A–Z list.

Question: Why are patrons not finding some of our nursing e-journal subscriptions? **Answer:** Nursing students generally start their searches within an aggregator database and not via the library's discovery layer. Within the aggregator database, students often limit their results to show only full-text and not abstracts. The nursing e-journals in question are not included in the aggregator database, hence why we have the outside subscriptions. However, the students can still access the full-text via the abstracts using the "Find Full-Text" button, which connects to the link resolver. By excluding abstract search results while conducting their research in the aggregator database, the students are inadvertently blocking themselves from discovering the outside subscriptions.

When making narratives for usage statistics for librarians and patrons, you should be able to give them an idea of how the resource performs when compared to other resources in the same discipline. Some ways you can prepare yourself to provide this information include:

- Familiarize yourself with your resources' subject areas and how collection development is organized at your library. Build off of these designations and loosely sort your resources by subject area and decision maker.
- Compare like resources against one another within a singular subject area. Look at the average cost, use, and CPU of a subject area's e-journals, databases, and e-books. Review the ranges of high and low cost, use, and CPU.

This preparation should not take much of your time. You certainly do not need to crunch numbers for your resources all at once. Let your observations take shape naturally as collection development projects arise.

Thinking Outside the Box

Educating yourself about the interactions between discovery, usage, and patron behavior enables you to fully meet the needs of your patrons and library colleagues. Remember to be cautious when discussing usage and CPU numbers with others, as these numbers cannot always be taken at face value. Contextual information is important. Therefore, think outside the box, and get creative when making narratives for your data. Perhaps make a research guide to answer common questions about usage and discoverability; or, for significant projects and where time allows, try out some data visualization tools, such as Tableau or Microsoft Excel. The more visually appealing and understandable the data becomes, the better you are able to communicate.

Key Points

- COUNTER reports standardize the way vendors collect and report usage. Librarians can use them to compare usage across similar resources.
- Be sure to educate yourself about usage statistics and any updates to the COUNTER Code of Practice. This is essential to understanding and working with usage statistics.

- Usage statistics cannot always be taken at face value. Further investigation may be needed to understand the numbers.
- CPU is a popular way to evaluate e-resource performance; however, CPU alone should not be used when deciding to renew or cancel a resource.
- Consider the discoverability of a resource when discussing usage statistics for existing resources or demonstrating need for potential resources.

References

Bucknell, Terry. "Garbage In, Gospel Out: Twelve Reasons Why Librarians Should Not Accept Cost-per-Download Figures at Face Value." *Serials Librarian* 63, no. 2 (2012): 192–212.

Kyrillidou, Martha, and Les Bland. "ARL Statistics 2007–2008." *Association of Research Libraries*. Accessed November 21, 2017. http://eric.ed.gov/?id=ED507072.

Project COUNTER. "The COUNTER Code of Practice for e-Resources: Release 4. Published April 2012." Last modified January 2016. https://www.projectcounter.org/wp-content/uploads/2016/01/COPR4.pdf.

Publishers Communications Group. "Library Budget Predictions for 2016." Last modified May 2016. http://www.pcgplus.com/wp-content/uploads/2016/05/Library-Budget-Prediction-2016-Final.pdf.

Stemper, James A., and Janice M. Jaguszewski. "Usage Statistics for Electronic Journals: An Analysis of Local and Vendor Counts." *Collection Management* 28, no. 4 (December 2003): 3–22.

Additional Readings and Resources

Fleming-May, Rachel A., and Jill E. Grogg. "Chapter 1: Assessing Use and Usage." *Library Technology Reports* 46, no. 6 (August/September 2010): 5–10.

Gul, Sumeer, and Tariq Ahmad Shah. "COUNTER Codes and Practices of Vendors: What They Say and What They Do Not Say." *Serials Librarian* 67, no. 2 (2014): 191–210.

Leffler, Jennifer J. "Getting Started with COUNTER Statistics." *Serials Librarian* 70, no. 1–4 (2016): 356–60.

Noh, Younghee. "A Study Measuring the Performance of Electronic Resources in Academic Libraries." *Aslib Proceedings* 64, no. 2 (2012): 134–53.

Osterman, Anne, Oliver Pesch, and Kari Schmidt. "Introduction to Usus, a Community Website on Library Usage, and a Discussion about COUNTER 4." *Serials Librarian* 70, no. 1–4 (2016): 211–16.

Pesch, Oliver. "Usus: A Community Website for Those Interested in the Usage of Online Content." *Serials Librarian*, 69, no. 3/4 (2015): 223–32.

———. "Implementing SUSHI and COUNTER: A Primer for Librarians." *Serials Librarian* 69, no. 2 (2015): 107–25.

Sugarman, Tammy, Stephanie Krueger, and Louise Kelly. "Evaluating Usage of Non-text Resources: What the COUNTER Statistics Don't Tell You." *Serials Librarian* 60, no. 1–4 (2011): 83–97.

Wonsik, Shim, and Charles R. McClure. "Improving Database Vendors' Usage Statistics Reporting through Collaboration between Libraries and Vendors." *College & Research Libraries* 63, no. 6 (November 2002): 499.

CHAPTER 8

Collection Development

IN THIS CHAPTER

- ▷ Defining collection development
- ▷ Listing qualitative resource evaluation considerations
- ▷ Describing collection development workflows in regards to various staffing structures
- ▷ Explaining how to collaborate with collection development staff
- ▷ Developing a watch list and wish list of resources
- ▷ Conducting a serials review and database review

E-RESOURCES LIBRARIANS PLAY A SPECIAL ROLE in the evaluation and maintenance of library collections. While the final purchase or cancellation decision may not always rest with the e-resources librarian, he or she is often highly involved with collection development staff. The e-resources librarian acts as both ambassador and translator to collection development staff by providing insight into the usage and technical features of e-resources, as well as acquisitions workflows. As Holly Yu and Scott Breivold state, "electronic resources librarians are expected to be bridge builders within their organizations. . . . The emphasis for communication and collaborative skills for these

positions is an indication of the strong role electronic resources librarians play in fostering a team environment within their organizations" (Yu and Breivold, 2008: 116). Therefore, it is important for e-resources librarians to understand how the collection development process works within their library.

What Is Collection Development?

Collection development is the ongoing analysis of library metrics—both quantitative and qualitative—to inform the selection and deselection of the materials which comprise a library's collection. Collection development often involves examining patron demographic projections, emerging research, and curriculum needs and assessing potential cost savings through resource cancellations or changes in purchase models to provide the most relevant collection for a library's patrons. In response to findings of this examination, many libraries choose to create a collection development policy, which proactively defines selection criteria for resources to be included in the library collection and that provides guidelines for donations, gifts, and replacements for lost or damaged items (Reitz, 2013).

Collection Development Workflows

Collection development workflows vary from institution to institution. In large institutions, a dedicated collection development committee may be responsible for deciding which resources a library will acquire, renew, or cancel. In other large- or medium-sized institutions, the decisions may be made by individual collection development staff or subject specialists. In smaller libraries, the decision may instead fall solely to the e-resources or acquisitions librarian.

Generally, a library's collection development staff is responsible only for making the decision to acquire, renew, or cancel resources, while the technical services staff complete the tasks which result from those decisions, such as paying invoices, cataloging new resources, or removing cancelled resources from the library's discovery systems. Throughout this chapter, we refer to collection development staff and technical services staff as two separate entities, although this division varies greatly from library to library.

Be sure to check with leadership or your supervisor about the historical practices of your predecessor when collaborating with library coworkers or other patrons. Ask them if there are any changes to the existing workflow which they would like you to facilitate now that you are in the role. Here are some topics:

- How much control do liaisons or reference staff have over their funds (whether assigned individually or to a subject area group)?
- What is the workflow behind interdisciplinary purchases and subscriptions?
- How much information is given to faculty about the cost and use of resources within their subject area? Do academic departments contribute any funds for their resources?

The answers to these questions will give you an idea of how much library coworkers or faculty are involved in collection development tasks. Every institution is different when it comes to who traditionally gives input to collection development decisions, so follow your leadership's direction on the existing channels of communication.

The following discussion regarding collection development covers much of the nuts and bolts of conducting collaborative renewals, whether you, as the e-resources librarian, are on the periphery of decisions, involved with decisions, or are the sole decision maker. Even without an established collaboration with collection development staff in place, you can begin to learn more about the qualitative information surrounding your institution's resources by:

- Keeping your eyes peeled for new academic programs, initiatives, faculty, or other happenings on campus.
- Consulting your institution or library's strategic plans.
- Considering your institution's course catalog; however, keep in mind the catalog sometimes includes classes which have not been taught in recent years.

The Additional Readings and Resources section at the end of this chapter also has many helpful articles to give you a baseline to work from if you are new to collection development tasks.

Resource Evaluation Considerations

Resource evaluation considerations represent the qualitative data points collection development staff often use to evaluate existing and potential resources. By incorporating these qualitative data points with the quantitative data points discussed in the previous chapter, you can feel confident when evaluating resources based on your institution's needs and policies.

There are many different areas to consider when it comes to collection development. In Table 8.1, we have listed some key considerations and questions to ask when evaluating an existing or potential resource. These evaluation considerations can also be of assistance if you find yourself at an institution without a collection development policy. Depending on your library's structure it may be appropriate to initiate discussions with relevant stakeholders to create a policy. However, defer to your library leadership's guidance in this matter. They can give you more details and specific instructions on how to follow their historical model of operating without a dedicated policy.

Bridging the Gap between Collection Development Staff and Technical Services

Due to differing organizational structures, collection development staff may be comprised of just about anyone: your library dean, assistant dean, subject liaisons, reference staff, or others. Be patient when working with library colleagues who are unfamiliar with technology or acquisitions workflows. Many of your daily tasks are unfamiliar to them, and you may need to repeatedly explain complex concepts to them, such as:

- COUNTER statistics and other quantitative metrics
- Subscription and purchase models
- Resource platform features
- Various discoverability possibilities and limitations

Table 8.1. Key Considerations and Questions to Ask Yourself When Evaluating an Existing or Potential Resource

EVALUATION CONSIDERATIONS	RELATED QUESTIONS
Resource Basics	• Who is the resource's audience? • What type of resource is it? • What is the resource's cost per use (CPU)?
Overall Appropriateness	• Does the resource align with our collection development policy or other collecting patterns?
Needs of the Relevant Subject Areas	• Is the resource useful to students and faculty? • What course will the resource support? • Are there any known champions of the resource among faculty? • What research guide is this resource linked from? • In general, what does the faculty think of the resource and how do they use it?
Use Analysis	• If there is low usage of this resource, is it due to lack of awareness? • Does it need better discovery tools, expanded access to full-text, inclusion of primary materials, and so on? If so, what possible remedies would you suggest?
Alternatives	• What are the comparable alternatives or complements to this resource, if any? • Should we consider adding or switching products? • What other platforms, vendors, or free resources have similar content?
External Comparison	• Do our peer universities subscribe to this resource? • What are the assessments of authoritative print and online review resources, such as the *Charleston Advisor*?
Usability	• Are there factors that make this resource difficult to use? • Are there linking problems or other technical issues? • Is the content indexed by discovery vendors? • Do we currently have limited seats to the resource? How many? Should we change this?

One of the primary services you can offer to your library colleagues is to help them better understand cataloging, discovery, technology, and usage statistics. By better serving your library colleagues, they in turn can better serve your patrons.

Standing Collection Development Meetings

Your library may or may not have an established collection development meeting. Sometimes collection development decisions are made at subject liaison or reference meetings, or if decisions are made at a higher level, at leadership team meetings. Touch base with your supervisor or leadership team about what has been done in the past and what they would like to have happen going forward. Don't be afraid to invite yourself to relevant

meetings. If you are able to either establish a collections meeting or attend an existing meeting, consider the following areas where you could be of potential assistance:

- Prepare before the meeting by reviewing some basic data about the resources, existing or potential, which will be discussed. Make notes regarding the cost per use (CPU) and the usage of the resources.
- If you have the technology at hand during the meeting, you may be able to look up prices, usage reports, or fund allocations from a laptop, tablet, or the meeting room computer.
- Educate collection development staff on how technical services can serve them. Often, collection development staff may discuss a project for which they are unaware of the available data or reports their technical services staff can provide. Embrace your role as a technical services translator; a good e-resources librarian bridges the gap between the front and back of the house, creating lines of communication to support improvements.

Collection Development Maintenance Projects

The following are examples of ways to solicit collection suggestions, feedback, and collaboration from library colleagues and patrons.

Resource Suggestion Form

A resource suggestion form allows patrons to recommend resources for the library to acquire. If your library does not have an existing resource suggestion form, be sure to ask for guidance from both library leadership and collection development staff before creating one. There could be various, valid reasons for not soliciting feedback from your patrons, such as budgetary concerns.

The goal should be to have a workflow in place to respond to a request once received. If you do not have a form or would like to edit an existing form, consider the following:

- How will patrons inform the library of resources in which they are interested?
- Who will be responsible for monitoring submissions? How will the data from these requests be recorded?
- How will library staff respond to the forms? Will collection development staff contact the patrons to acknowledge their submission and follow up with them once a decision is made?

Creating a Watch List and Wish List

The majority of your resources likely perform well and have acceptable usage and CPU. However, there will inevitably be outliers whose use or CPU sticks out amongst their fellow resources. Best practice for collection development is to proactively keep track of these underperformers to steward the budget well. A watch list, whether something you keep informally or maintain officially in collaboration with your colleagues, is an excellent way to keep track of underperformers. Some libraries refer to their watch lists as endangered species lists.

The purpose of a watch list is to keep up-to-date on what, if any, existing resources could potentially be cancelled in order to reallocate funds. Once those resources are identified, a watch list allows the opportunity for feedback to be gathered from library staff or campus patrons. Resources with zero or very little usage are good candidates for a watch list. The amount of time a resource spends on the watch list is up to you; there could be a set amount of time which you wait before cancelling the resource, or you could review resources on a case-by-case basis.

Some libraries have created web pages to inform their patrons about their watch list. The web page can include information about what resources are under consideration for cancellation and when they might be cancelled, then provide a submission form for soliciting feedback. The watch list web page could be promoted by word of mouth, e-mail, or mentions on the library home page. As we have mentioned before, consult with library leadership on how much to involve campus patrons.

Alongside your watch list, it is also beneficial to proactively create a wish list. The purpose of a wish list is to be educated on what resources would best meet your institutional needs should funds become available. Within reason, information about the desired resources should be recorded for future reference. Exercise caution when asking for price quotes since some vendors raise the subscription or purchase rates after learning of your high level of interest. The wish list should be created in collaboration with collection development staff. It could be informally compiled or come together naturally as a result of regular collection development meetings. Data points to collect for the wish list include the following:

Collection Development Staff

- Relevant audience
- Curriculum needs met
- Comparison to existing resources for unique content

Technical Services

- Cost
- Turnaway statistics (where available)
- Available access models
- Technical specifications (e.g., authentication method, advanced features, etc.)

Serials Review and Database Review

Ongoing review projects are a great way to stay ahead of any budgetary surprises and to avoid being overwhelmed when you need to crunch a massive amount of data in a short amount of time. In the next two sections, we will discuss both a serials review and a database review and explain how to undertake these reviews since the workflows for both are very similar.

There are no rules for how often you should conduct review projects, and what we recommend are only guidelines. Due to the nature of e-journals, a serials review can be done every three to five years, especially if you do not make any major changes to your subscriptions. A database review should be more of an ongoing, monthly review. Databases often have a greater budgetary impact than e-journal subscriptions and are likely to be scrutinized heavily if funds for new resources are needed.

Ideally, a serials review would include all serials titles, whether they be print, online, print plus online (P+O), or within packages. Although collection development staff generally have a working tally of what resources the library subscribes to and know which resources are heavily used by patrons, this kind of serials review allows collection development staff to get an in-depth understanding of their subject areas within the larger library collection. If you are unable to conduct a comprehensive serials review due to time or personnel constraints, you may be able to do a small, more focused review instead.

To conduct a small-scale review while potentially cancelling the most money for your effort, you could only consider stand-alone e-journal subscriptions. The review would exclude P+O subscriptions and any e-journal within a package. Depending on how many direct or sub-agent orders your library has, your sub-agent title lists would be a good place to start.

For a database review, you will be looking at your database subscriptions, as well as other resources which may not be strictly labeled as databases, such as datasets. Databases could be comprehensively reviewed annually or by month. If by month, we recommend loosely scheduling their review according to their renewal month with about ninety days lead time to make any necessary cancellations. Decision makers should feel free to skip a review if the resource's content, coverage, use, and relevance have not changed. Some libraries choose to document the data collected from the database review into annual evaluation forms. You could base an evaluation form off of the evaluation considerations we have mentioned previously and ask your collection development staff for any feedback or changes that they would make to the form.

Data Preparation for a Serials Review and Database Review

First, decide what resources to review. Since many resources require prior notification of cancellation within their licenses, be sure to give yourself lead time for potential cancellations before the resources' renewal dates. Once you have identified what resources will be reviewed, work with collection development staff to sort the resources by subject areas or decision maker. Next, gather the data for either your serials or database review. We recommend including multiple years of data and creating a spreadsheet which includes:

- Resource name
- Resource identifiers (ISSNs or notes)
- Renewal date
- Subject area
- Cost
- Fund
- Usage statistics
- Cost per use (CPU)

If your fiscal year straddles multiple years (e.g., July 2017–June 2018), we recommend calculating CPU by assigning the cost to the last year in the fiscal year range. For example:

FY17/18 = $100 >> 2018 = $100

FY16/17 = $75 >> 2017 = $75

FY15/16 = $50 >> 2016 = $50

The cost for one year can then be matched up for the January–December usage for that year.

2018 usage = 20

2017 usage = 10

2016 usage = 5

Therefore, the CPU would be calculated as:

$100 / 20 usage = $5.00 = 2018 CPU

$75 / 10 usage = $7.50 = 2017 CPU

$50 / 5 usage = $10.00 = 2016 CPU

Once you have finished gathering data and crunching numbers, you can begin to apply any review parameters to the data. These review parameters, such as an estimate of high CPU or other qualitative metrics, should be defined ahead of time in collaboration with collection development staff.

Ultimately what you decide to cancel or maintain is determined by your goals for the project. Without a particular cancellation dollar amount or other pressing budgetary need, you can make commonsense decisions to identify resources that are underperforming to cancel. If you do have a particular cancellation dollar amount as a goal, sort your resources in order of descending CPU and then review the qualitative evaluation points we have mentioned previously to identify outliers that you should maintain. Unfortunately, you may need to cut more than you like, including some resources which are performing well.

Key Points

- Consider both qualitative and quantitative data when evaluating resources to order, maintain, or cancel.
- Embrace your role as technical services translator to collection development staff. A good e-resources librarian bridges the gap between the front and back of the house, creating lines of communication to support efficiencies.
- Follow your library leadership's guidance for what collection development information to share with library colleagues or campus patrons.
- Maintain a watch list and wish list to keep track of resources that you may want to cancel or obtain.
- When conducting review projects, such as a serials review or database review, look for underperformers to cancel based on collaboratively defined parameters.

References

Reitz, Joan M. "Collection Development." *Online Dictionary for Library and Information Science.* Santa Barbara, CA: ABC-CLIO, 2013. http://www.abc-clio.com/ODLIS/searchODLIS.aspx.

Yu, Holly, and Scott Breivold. *Electronic Resources Management in Libraries: Research and Practice.* Hershey, PA: Information Science Reference, 2008.

Additional Readings and Resources

Appleton, Betsy, Justin Clarke, Laurie Kaplan, Dani Roach, and Rebecca Kemp Goldfinger. "How We Used to Build the Future: 30 Years of Collection Development Trends." *Serials Librarian* 70, no. 1–4 (2016): 198–203.

Bucknell, Terry. "Garbage In, Gospel Out: Twelve Reasons Why Librarians Should Not Accept Cost-per-Download Figures at Face Value." *Serials Librarian* 63, no. 2 (2012): 192–212.

Emery, Jill, and Graham Stone. "Investigation of New Content." *Library Technology Reports* 49, no. 2 (February 2013): 10–15.

Evans, G. Edward, and Margaret Zarnosky Saponaro. *Collection Management Basics, 6th ed.* Santa Barbara, CA: Libraries Unlimited, 2012.

Flatley, Robert K., and Krista Prock. "E-Resource Collection Development: A Survey of Current Practices in Academic Libraries." *Library Philosophy and Practic*e (October 2009): 1–4.

Gohn, Katie, and Charlie Remy. "Proactive and Prudent: A Report of a Holistic Cyclical Electronic Resources Review Pilot at the University of Tennessee at Chattanooga." *Serials Librarian* 73, no. 1 (2017): 44–52.

Hardy, Beatriz Betancourt, Martha C. Zimmerman, and Laura A. Hanscom. "Cutting without Cursing: A Successful Cancellation Project." *Serials Librarian* 71, no. 2 (2016): 112–20.

Jensen, Karen. "No More Liaisons: Collection Management Strategies in Hard Times." *Collection Management* 42, no. 1 (2017): 3–14.

Johnson, Peggy. *Fundamentals of Collection Development and Management, 3rd ed.* Chicago, IL: American Library Association, 2014.

Lehman, Kathleen A. "Collection Development and Management." *Library Resources & Technical Services* 58, no. 3 (2014): 169–77.

Lukes, Ria, Susanne Markgren, and Angie Thorpe. "E-Book Collection Development: Formalizing a Policy for Smaller Libraries." *Serials Librarian* 70, no. 1–4 (2016): 106–15.

Mitchell, Nicole, and Elizabeth R. Lorbeer. "Building Relevant and Sustainable Collections." *Serials Librarian* 57, no. 4 (2009): 327–33.

Wahl, Mary. "Full Stream Ahead: Designing a Collection Development Workflow for Streaming Video Content." *Library Resources & Technical Services* 61, no. 4 (2017): 226–36.

Walters, William H. "Beyond Use Statistics: Recall, Precision, and Relevance in the Assessment and Management of Academic Libraries." *Journal of Librarianship & Information Science* 48, no. 4 (December 2016): 340–52.

———. "Evaluating Online Resources for College and University Libraries: Assessing Value and Cost Based on Academic Needs." *Serials Review* 42, no. 1 (2016): 10–17.

PART II

A PATH TO SUCCESS

THE SECOND PART OF THIS BOOK IS DEDICATED to setting you up for long-term success. We walk you through the first few months as an electronic resources librarian, focusing on what questions to ask, people to meet, and tools to acquire so you can hit the ground running. We also introduce you to some important concepts about goal setting and time management, as well as tips and tricks for keeping organized, avoiding burnout, and passing on your knowledge to others. We want you to thrive, not just survive. We hope the information contained in this section will help you to do so.

CHAPTER 9

Your First Ninety Days

IN THIS CHAPTER

- ▷ Questions you need answered
- ▷ People you need to meet
- ▷ Tools for your toolkit

IN THE BUSINESS WORLD, THERE IS A CONCEPT KNOWN as the 30-60-90 day plan. Used as an onboarding technique (and sometimes an interview technique), it breaks a new employee's adjustment period into thirty-, sixty-, and ninety-day intervals with specific goals or milestones attached to each one. At the end of the ninety days, the employee then undergoes an assessment to see how well he or she has met each goal and to determine whether or not the employee will continue with the company.

The idea of a trial period is not unfamiliar to libraries. If you have worked any type of library job—from page to paraprofessional to full-fledged librarian—you probably underwent a three- or six-month performance review to decide how well you fit with the work, staff, and library culture. However, the path from initial hire to successful review is often vague. Other than a few human resources checklists and staff meet-and-greets, many librarians are thrown into their job duties headfirst and expected to start swimming right away. This can be especially true with newly formed positions, which many e-resources positions are.

To alleviate the feeling of drowning, we recommend forming a proactive plan, such as the 30-60-90 day plan, to help you adjust to your new responsibilities. In the 30-60-90 day plan, the first thirty days are for learning and introductions. Before you begin initiating any projects, you first need to know what the current state of your library looks like, who the major players are, and what resources you have at your disposal.

However, as the saying goes, you often don't know what you don't know. If you are new to the e-resource game, you may not know which questions to ask, which people you should be meeting, or which tools you need for the job. In this chapter, we break down

each of these pieces—questions, people, and tools—into comprehensive checklists, which you can then use as jumping-off points for your own inquiries. We recommend printing these checklists and keeping them handy as you move through your first few months. You can find worksheets for the checklists, complete with space to jot down notes and doodles, in Appendixes 2 and 3 at the back of this book.

Questions You Need Answered

The famous French anthropologist Claude Lévi-Strauss once said, "The scientific mind does not so much provide the right answers as ask the right questions" (Lévi-Strauss, 1990: 7). As library scientists, we librarians are well trained in the art of asking the right questions. In fact, it is the foundation of one of our signature job skills: the reference interview.

During your first ninety days on the job, we suggest thinking of your position in terms of a reference interview. Your library has essentially posed you a series of questions—How can we improve our e-resources collection? How can we ensure uninterrupted access for our students? and How can we get the best possible licenses for our resources?—and your job will be to answer them to the best of your ability. However, to address these questions, you first need to know a little about the library itself.

In a reference interview, librarians tend to have a go-to set of open-ended questions. Things such as: Could you tell me more about what you want to find? How much information do you need? and What guidelines did the professor give you? Similarly, we have developed ten open-ended questions you should ask about your library and its resources before you attempt to answer any of the bigger questions posed above. Other than Question 1, which we suggest you answer first as it could save you a lot of time, there is no particular order to these questions. Some may be answered simultaneously, while others may be broken into parts and answered over several weeks.

Question 1. What Documentation Exists?

This may be the single most important question you ask. If you are taking over the position from another librarian, knowing what he did, how he kept organized, and what decisions were made will help answer most of the questions to come on this checklist.

Essential documentation to snag is lists of vendors and resources, contact information sheets, username/password spreadsheets, policy documents, and instruction manuals. You can also ask for important e-mail chains to be forwarded to your inbox, such as those containing previous purchase or negotiation decisions.

Even if you don't have a predecessor, you may still be able to collect relevant documentation. Do your due diligence and visit the various departments that previously handled your job responsibilities, asking for any and all information they may have concerning the library's e-resources. You may be pleasantly surprised at the result. Just remember, the more documentation you uncover now, the less footwork will be required later.

Question 2. What Are the Established Workflows?

In addition to hunting down documentation, one of the first things you should try to ascertain is how e-resource tasks, such as the submission of product orders and activation

of databases, are currently handled. Sometimes these responsibilities are split between departments. For instance, the subject liaisons may be responsible for negotiating prices and placing orders, the e-resources librarian for submitting technical setup information to the vendor, and the cataloger for adding it to the catalog or discovery layer. Other times, however, these tasks may be handled by only one or two individuals.

We recommend asking for or drawing out a simple flowchart detailing who is responsible for what and how tasks are passed from one person to another (i.e., via e-mail, meetings, or project management software). Getting to know the established e-resource workflows—even if those workflows will be changing with your arrival—will help you determine not only who you will be working with most closely but also where to turn to for questions or help.

Question 3. Who Are My Subordinates, and What Are Their Primary Skills?

If you are lucky enough to have an assistant or two under your supervision, it is a good idea to sit down with them early—preferably within your first week on the job—to establish what they know and what their skill sets are. In addition to talking about their current job responsibilities, which you should note in your workflow chart for Question 2, you should ask them about their education and work history. You may discover they have secret talents that could come in handy later.

Assistants are also a good source of insights into the culture and history of the institution, especially if they have been in their position for a while. Such knowledge can be invaluable when you need to dive into the past to answer questions about historic decisions, policies, or initiatives. Therefore, establishing what they might or might not know could save you time and energy in the future.

Question 4. What Are My Access Tools?

Besides answering questions about overarching job functions, workflows, and personnel, you will also need answers to the technical aspects of your job. Access tools are a good place to start. As you will recall from Chapter 2, an access tool is the interface through which a patron is able to connect to an online resource—for example, through the library catalog, research guide, or A–Z lists. Knowing your various access tools and how they function is necessary for almost every aspect of e-resource management—from activation to maintenance to troubleshooting to cancellation—so proactively seeking out your library's various access tools will allow you to dive into your work more quickly and effectively.

Question 5. What Are My Authentication Methods?

Access tools and authentication methods go hand-in-hand. When patrons reach a licensed or paid e-resource through an access point, they must prove their affiliation with your library through an authentication process to view, download, or otherwise interact with the resource. Authentication methods vary by institution, location, and resource and can be as seamless as a vendor reading an IP or as inconvenient as a managed password for each patron. Authentication methods are also where patrons experience the most breakdowns in access. A thorough understanding of your library's authentication methods will allow you to respond promptly and confidently when a stressed patron is unable to view an e-book for class.

Question 6. Who Are My Vendors?

Vendors play a significant role in e-resource management. Most of the content your library buys or licenses will be hosted on the vendors' own platforms; as a result, they are outside your immediate sphere of control. Therefore, beyond just placing orders and paying invoices, you will be working closely with vendors to do a variety of things, such as solve access issues, gather usage statistics, and solicit user feedback. Luckily, vendors are invested in making your and your patrons' experience a good one. You just need to know the right person to ask for assistance. Depending on the size of the company, you may have two or three (or sometimes four or five) contacts with a single vendor, each with a specific job function. To save yourself time and energy (and endless forwarded e-mails), it a good idea to start compiling a list of names, e-mails, phone numbers, and job titles for these contacts. Don't forget to include any special groups, agents, or consortia through whom your library gets content.

Question 7. What Are My Purchased and Licensed Resources?

E-resources are generally divided into three categories: purchased content, subscribed content, and freely available content. Unless your library has made a deliberate effort to integrate and promote freely available content, often referred to as open access content, in its collections, we recommend focusing on getting acquainted with your purchased and subscribed e-resources first. The reason is obvious: your library has paid good money for these e-resources; you want to make sure you are a good steward of those funds. This means taking inventory of what resources you have, what resources you *should* have (paid for, but not activated within your discovery systems), what vendor you get them from, and whether they are part of your local collection or part of a larger consortial collection.

Question 8. What Is My Help Ticket System?

One of the primary responsibilities of the e-resources librarian is to ensure continuing access to the library's electronic collection. Your library's e-resource collection is likely too big for you to monitor each individual e-book, e-journal, and database for disruptions in access so you will need to rely on outside reports to identify problems. Help tickets are a great barometer for this. Find out if your library has a help ticket system for e-resources and spend some time browsing through the tickets. Does any particular database or platform keep appearing? Are users encountering the same error message over and over again? If so, you know where to focus your attention first. If your library does not have a help ticket system, you should recommend that it invest in one.

Question 9. Who Negotiates and Signs My Licenses?

As part of your investigations into established workflows, you should pay particular attention to the license negotiation and signing process. Because licenses are legally binding contracts that dictate what can be done with resources, by whom, and for how long, many institutions choose to involve their legal affairs department in negotiations or have high-level administrative officials sign licenses. Workflows that involve these officials are usually well-established and unlikely to change so you will need to become closely acquainted with these departments to usher licenses through in a timely manner.

However, not all libraries choose to involve their legal or administrative officials or involve them to a much lesser extent. In these instances, the work of negotiating and signing licenses will likely fall to you as the e-resources librarian. Please refer back to Chapter 6 if you would like to refresh your memory on the process of negotiating licenses.

Question 10. What Do My Licenses Contain?

Regardless of who negotiates and signs your licenses, it will be up to you to inform others of their contents. Licenses supersede copyright law, which means some uses you expect under provisions like fair use may be restricted under the terms of your license. Conversely, however, some uses explicitly prohibited under copyright law may be granted through the license. It all depends on what was negotiated. Knowing what can and cannot be done with your licensed resources—including things such as interlibrary loans, course reserves, or even simple copy-and-pasting—is necessary to enforce those restrictions and keep your library out of legal trouble. While it is not up to the e-resources librarian alone to keep the library compliant with the terms and conditions of the license, you will likely be the primary person people turn to with questions about proper usage. Being informed of the contents of your licenses will help you address these concerns promptly and with authority.

People You Need to Meet

A common misconception about e-resources librarianship is that it is solitary work. Unlike the reference staff, whose positions are seen as the height of social interaction, e-resources librarians are often imagined to be cloistered individuals, hiding in their office, busily typing away at the computer. While e-resources librarians certainly do spend a lot of time on the computer, they are not nearly as reclusive as some people believe. In fact, one could argue that the e-resources librarian is the most social of the technical services staff. Unlike a cataloger or, say, a traditional acquisitions librarian, the e-resources librarian works not only with a network of vendors and other technical services staff but also with students, reference staff, faculty members, and departments outside the library, such as legal affairs or IT. Because of this, a large chunk of the e-resources librarian's time is spent engaging with others, either on the phone, in meetings, or via e-mail.

As a new e-resources librarian, part of your first ninety days should be spent introducing yourself to all your constituents. Below, we have compiled a list of the people you are most likely to be working with in the future. Of course, you will want to tweak this list depending on the workflows at your institution. We recommend taking a few days to travel to the various offices, introduce yourself in person, and ask a few of the questions on your worksheet.

Technical Services Staff

First Contact

Head of Technical Services. Out of all the library staff, you will likely be working most closely with the technical services staff. In fact, since the e-resources librarian position typically falls under the umbrella of technical services, chances are high that you will

have already met a majority of them during your interview process. Now is a good time to circle back and reconnect. As your closest colleagues, they will be the ones most able to answer your questions about workflows, vendors, documentation, and resources. We suggest scheduling some time—either independently or as a group—to sit down with them and really pick their brains.

What to Ask

- What e-resource documentation exists? Where can I find it?
- Could you describe for me the established workflows for ordering, purchasing, and cancelling information?
- Which vendors do we work with and/or order from the most? Do you have their contact information?

Access Services (Circulation) and Reference Staff

First Contact

Head of Access Services/Circulation and/or Head of Reference. Your access services and reference coworkers are on the front lines assisting patrons with the use of the library's e-resources. You will likely interact with them in two capacities. First, to educate them on the capabilities and limitations of the products they are using, including restrictions set out in the license agreement. Second, to respond to any access problems. As frontline staff, they are the most likely to encounter access issues. Keeping a good line of communication open between you and the access services and reference staff will help you catch problems as they arise.

What to Ask

- How do you report problems regarding e-resources?
- Which e-resources are the most popular?
- Which e-resources do you have the most difficulty/problems with?

Interlibrary Loan (ILL) Staff

First Contact

Interlibrary Loan Librarian. Depending on your library's organizational structure, interlibrary loan (ILL) may be its own department, an extension of access services, or an extension of technical services. Regardless of its position, you will want to set aside time specifically to meet with the ILL librarian separate from the other two departments. Like the access services staff, those who handle interlibrary loan requests tend to encounter a lot of e-resource access issues during the course of their daily duties. You will want to make certain the staff has a method of communicating these issues to you rather than simply declining the request and moving on. In addition, we recommend asking if the ILL staff has a list of approved vendors for fulfilling requests. Not all vendors permit their material to be used for interlibrary loan (the license will explicitly prohibit the practice), so getting a list you can cross-check and update as needed will be beneficial to both you and the ILL staff.

What to Ask

- How do you report problems regarding e-resources?
- Do you have a list of vendors approved for fulfilling ILL requests?

Collection Development Staff

First Contact

Head of the Collection Development. Collection development is conducted in a variety of ways and amongst a variety of people, depending on the library's history, established workflows, and priorities. Within the first three months of stepping into your role, you will want to touch base with those who are responsible for making the selection and deselection decisions for your collection to discuss how involved the e-resources librarian will be in the process. For larger institutions, this often involves approaching a collection development committee; for smaller institutions, this may require one-on-one meetings with collection development staff, such as subject liaisons or the acquisitions librarian. Regardless, the main goal of these meetings is to ascertain how collection development is currently being handled and to offer your services, such as collecting and interpreting usage statistics, to help inform collection development decisions.

What to Ask

- How is collection development currently being handled? Has this changed in recent history?
- How much control, if any, does collection development staff have over their funds?
- How do patrons let library staff know about resources they want the library to acquire?
- What are the current pressure or pain points for resources which the library wants to acquire? Is there an established wish list?

Library Systems

First Contact

Head of Systems/Systems Librarian. The systems librarian is responsible for administering the day-to-day technology used in the library by patrons and staff. This typically includes maintaining the library's computer network and workstations, installing and updating software and staff applications, and overseeing its web servers, data repositories, and integrated library system (ILS). You will likely need to communicate regularly with the systems librarian regarding technology affecting e-resources (changes in IP addresses, for instance) and for diagnosing access issues, especially those concerning patron authentication. The systems librarian is also intimately familiar with the individual quirks of your ILS, discovery system, and electronic resource management (ERM) system, so make good use of his or her expertise as you orient yourself to your library's setup. No doubt, he or she will be more than happy to answer the technology questions you have.

What to Ask

- What authentication system(s) is the library using?
- Whom do I contact when changes need to be made to EZproxy (if applicable)?
- Whom do I contact for help with issues related to access?

Institution's IT Department

First Contact

Head of IT/Chief Information Officer (CIO). Similar to the systems librarian, it is important to make contact with your institution's IT department to keep informed of developments in campus technology and security. The extent to which you regularly communicate with IT will depend largely on your library's organizational structure. Smaller institutions do not always have a systems librarian to act as a liaison, so the e-resources librarian may be called on to fill that role. However, even in larger institutions, it may be necessary to communicate directly with IT rather than a surrogate to tackle complicated troubleshooting issues. We therefore recommend taking time to introduce yourself to the higher levels of administration and secure a line of communication. After all, there is nothing more frustrating than waiting for your inquiry to get elevated through the layers of technical support when tackling a pervasive access issue.

What to Ask

If your institution's IT handles the technical aspects of your library, we suggest you also ask the questions we assigned to the systems librarian, in addition to the questions below.

- Who should I contact when an urgent problem arises?
- How is important IT information relayed to the library? Could you include me in the list of contacts?

Campus or Library Legal Counsel

First Contact

Depends! Speak with your leadership team first. Institutions of higher education retain counsel—sometimes to the extent of forming an entire department—dedicated to assessing and minimizing legal risk. Because licenses signed between the library and a vendor are legally binding contracts, legal counsel often involves itself in the negotiation and signing process. Part of your job as the e-resources librarian will be to usher licenses through this process. Therefore, it is important to familiarize yourself with the workflows and introduce yourself to the important players. This may stretch beyond just the legal department to include high-level administrative officials who have been authorized to sign contracts, especially if those contracts involve thousands of dollars (for example, the big deal packages we discussed in Chapter 4). Of course, not all libraries choose to involve their legal department, or involve it in different ways, so it is best to establish what the workflow is first before deciding whom to contact.

What to Ask

- Who is responsible for the negotiation and approval of licenses?
- Who signs our licenses? Are different people authorized to sign a license depending on the money amount?

Library Director

The final person you should seek out a one-on-one meeting with is your library director or library dean. Regardless of how involved the director is in your day-to-day duties, he or she is likely to call upon your expertise for help with big picture discussions and decision making. This could include anything from annual reports to strategic planning sessions to recommendations about retention and acquisition. Unlike the other meetings we discussed, where you are endeavoring to get specific, ground-level questions answered, your first meeting with the director will likely cover the more visionary aspects of your job and the library as a whole. Come prepared to discuss what you want to achieve in your position, what you need to achieve it, and how this relates to the library's strategic plan and mission statement. We also recommend that you schedule this meeting toward the end of your first three months, so you have time to get acquainted with your surroundings, coworkers, and subordinates. This way you can truthfully and substantially answer the question: "How are you settling in?"

What to Discuss

- What is the library's strategic plan for the next five years? Ten years?
- How do e-resources fit within that plan?
- What new initiatives involving e-resources are under way? What initiatives would you like to see under way?

Tools for Your Toolkit

Now that we've talked about the "Questions You Need Answered" and the "People You Need to Meet," let's turn our attention to the tools you need to be successful as an e-resources librarian. Since the majority of e-resource tasks are completed via the computer, we are focusing specifically on the electronic tools—hardware, software, cloud applications, and so on—that every e-resources librarian should have in his or her toolkit.

Basic Tools

Despite working with a variety of technologies, such as databases, e-books, discovery layers, and link resolvers, you need very few tools to get started in e-resource management. And, fortunately, all these tools come standard in office environments. They include:

- Word processing software (e.g., Microsoft Word)
- Spreadsheet manipulation software (e.g., Microsoft Excel)
- PDF reader (e.g., Adobe Acrobat Reader)
- E-mail
- Calendar
- Web browsers and access to the Internet

Table 9.1. Standard Office Tool Functionality You Should Know

Word processor	• Track changes/redline • Comment
Spreadsheet software	• Filters • Hide/unhide columns and rows • Number formats • SUM function • IF function • VLOOKUP function • Pivot tables/charts
PDF reader	• Electronic signature • Password protection
E-mail	• Folders and move rules • Categories • Follow-ups/reminders • Archive/e-mail backup
Calendar	• Appointments and meetings • Shared calendar
Web browsers	• Clear cache and cookies • Enabling/disabling plug-ins • Security settings

There are additional tools which are nice to have and can help bring your work to the next level (and that we will discuss in the next section), but to get started, these six basic tools are all you need.

Most of us are familiar with the fundamentals of these tools, such as composing a letter in Word or making a simple dataset in Excel, but we suggest you delve further into each of these applications and learn some of their advanced features. In Table 9.1, we have highlighted the functionality we find most essential for e-resource work.

Don't worry if you are not already familiar with these features. There are plenty of free tutorials available online that you can use to brush up on your skills. Here are a few we recommend:

Office 365 Training Center: https://support.office.com/en-us/office-training-center

GCFLearnFree: https://www.gcflearnfree.org

Additional Tools

We have mentioned many of these tools throughout the other chapters in this book so we will not elaborate too deeply on their uses here. However, we highly recommend looking into the collaborative and team-oriented tools if you are working in any sort of a team environment. E-resource management has many moving parts and involves many different players. These tools, many of which are free or free-to-try, can be instrumental in keeping communication open and workflows smooth.

USING ONENOTE TO KEEP ORGANIZED

OneNote is almost like a LibGuide, where a person can organize different forms of information into one place, such as Excel spreadsheets and PDFs. This is why OneNote is a remarkable tool to use to organize contracts and licensing agreements; it allows for all of the information to be stored in one place. OneNote gives a person the ability to have different names for their tabs, and within those tabs, a person can also create main folders and sub-folders. For my OneNote project, I have labeled the tabs: Subscriptions, Open Source, Other Source (Government databases), Archived (contracts and licensing agreements that are inactive), and Database Spreadsheet. Within those tabs would be where the main folders are located and are labeled with database names. Under the database names would be the sub-folders, which are labeled: Contracts, Licensing Agreements (Current Agreements), and Past Licensing Agreements. OneNote also has the ability to upload PDFs, Word documents, and other forms of information straight from a person's e-mail to the sub-folder without having to save it to another drive or their desktop.

—Amanda Lousley, Air Force Librarian

PRO TIP: TEAM E-MAIL

A team e-mail is a shared e-mail address. It can either be a Listserv-type e-mail, which distributes received messages to its members, or it can be a shared inbox, to which all team members have access. Using a team e-mail can be beneficial to all of your e-resource workflows. It provides your colleagues and patrons with a centralized point of contact for help tickets or other issues. A team e-mail is also invaluable for acquisitions purposes, especially when registering with vendors. One e-mail address can simplify your vendor username/password record keeping. Team e-mails also support collaborative work. When answering help tickets or responding to other issues, team members can easily claim a ticket or e-mail by replying to the team e-mail. Ask your IT colleagues if they are able to set up a shared e-mail for your team.

Table 9.2. Additional Tools to Help with E-Resource Work and Simplify Your Workflow

Task management tools	• Asana • BaseCamp • OneNote • Trello • Wunderlist
Team communication tools	• Team e-mail • Slack
Password management tools	• Google passwords • Excel • LastPass
VPN	• Institution's VPN • Cell phone tethering • Private Tunnel • TunnelBear • Windscribe • Hotspot Shield
Screencasting/screensharing	• Screencast-o-matic • GoToMeeting • Join.me
Site availability checker	• isitdownrightnow.com • downforeveryoneorjustme.com
Centralized storage space	• Shared network drive • Internal LibGuides • Institution's intranet
Plain text editor/source code editor	• Notepad • Notepad++ • BBEdit
Additional hardware	• Second monitor

Key Points

- Your first three months on the job should be spent discovering what resources, staff, and tools you have at your disposal. This includes surveying the historical landscape to know what was done and why and where your time and energy will be best spent in the future.
- Strong relationships with colleagues both inside and outside your department are crucial to success in this position. You should proactively initiate these relationships to define the roles, functions, and workflows you will need to complete your daily work. These relationships are crucial for efficiency and integrating yourself into an existing culture.
- You already have the basic tools that you need to do the job. However, it may be worth exploring some advanced options to help streamline work and improve communication. See Tables 9.1 and 9.2 for recommended resources.

- Checklists are a good way to organize the information you need to gather. We have included general checklists to get you started, but you can always expand on the checklists we have provided.

Reference

Lévi-Strauss, Claude. *Mythologiques, Overture.* Chicago, IL: University of Chicago Press, 1990.

Additional Readings and Resources

Kolendo, Joanna. "Tools of the Trade." *Journal of Electronic Resources Librarianship* 25, no. 3 (September 2013): 228–31.

Minchew, Tessa, and Sofia Slutskaya. "The Path of Least Resistance: Using Available Tools to Support the E-Resources Lifecycle." *Serials Librarian* 70, no. 1–4 (2016): 236–46.

CHAPTER 10

Goal Setting and Time Management

IN THIS CHAPTER

- Defining goals
- Creating an effective to-do list
- Developing good habits
- Implementing time management skills
- Conducting efficient e-mail management
- Creating a time log
- Crafting your ideal work week

BURNOUT IS A REAL DANGER for e-resources librarians. In 2016, Margaret Hogarth surveyed attendees at the Electronic Resources & Libraries Conference about the level of "e-burnout" they were feeling in their jobs. The majority of respondents reported feeling some level of burnout, identifying with phrases like "I feel used up at the end of my day" and "I feel fatigued when I get up in the morning and have to face another day on the job" (Hogarth, 2017: 86). While these e-resources librarians and staff were certainly self-selecting (they were attending a presentation specifically about dealing with burnout), their sentiments are not unique. We have heard people talking about e-burnout and change fatigue from all corners of the e-resource world: at vendor dinners, during web conferences, on Listservs, and beyond. We have even experienced it ourselves.

Throughout these discussions, a similar theme has emerged. As respondents to Hogarth's survey said, many people wish for more "instruction on time management, leadership, and work-life balance" to help them deal with the ongoing deluge of e-resource tasks (Hogarth, 2017: 91). In this chapter, we tackle just that, with a specific focus on

effective goal setting, time-management skills, and tips and tricks to stay organized in an ever-changing landscape.

For all of the following ideas we mention in this chapter, remember to take what you need and leave what you do not. Not everyone is alike in their temperaments and habits. Some ideas will resonate with your particular struggles while others will not. We hope that by implementing these suggestions as appropriate to your situation, you will find a sense of calm amid the chaos.

Defining Goals

A goal is a predetermined end result that you direct your efforts towards and wish to achieve in either the short term or long term. Setting goals both in your personal and professional life can keep you on track and help prevent burnout. Much of goal setting is about personal awareness. To take control of the direction you are headed in life, you must take an honest look at your motivations, strengths, and weaknesses—which, honestly, can be a bit uncomfortable. However, once you are honest with yourself about what habits you need to develop to accomplish your goals, you can start moving forward.

People set goals in their professional lives because they want to live intentionally during the time available to them. As Catherine Hakala-Ausperk says, "What happens in the thirty years between graduation and retirement . . . it's supposed to resemble something you intended to happen" (Hakala-Ausperk, 2010: 51). As you set goals, it can be helpful to ask yourself questions about how you currently feel about your life and about your future. We have provided some questions for you to work through for your initial goals, but you will likely want to revisit them periodically as circumstances change.

- Where do you want to be one year from now? Five years? Ten years?
- What projects or other actions would improve your life if they were completed in the next year?
- Are there any healthy habits that you would like to work on developing?
- Even if you have not had goals in your life lately, what has been working for you and what has been working against you?

Another helpful tactic for setting goals is to design categories under which to brainstorm. Some example categories include:

Job description: Are there any of your base duties which you need training for? Do you need to approach your supervisor about removing, editing, or adding anything to your job description?

Professional development: Should you increase your professional involvement by attending conferences or by joining professional organizations? What are the requirements for promotion at your library? Are you interested in scholarly publishing at any level?

Reorganizing staff or duties: If your area has been a part of or will be a part of a reorganization, are there any areas that need to be examined further for changes to make the process smoother? Do any of the duties that you share with colleagues need to be evaluated and adjusted?

Team building: If you participate in teams at work, are there any contributions, such as training, starting a discussion, or project commitment, that you could make for the betterment of the team? If you have direct reports, what can you do to improve the overall function of your team? Who do you need to spend more one-on-one time with?

Back-burner projects: What projects have you been putting off? What projects are such huge undertakings that they need to be chipped away at and completed over a span of months?

Strategic plan (library or institution): Do any of your daily duties directly contribute to either your library's or institution's strategic goals?

After you have brainstormed some potential goals it can be helpful to assign them various time commitments: daily, weekly, monthly, quarterly, annually, and so on. By proactively assigning a time commitment to goals, you can prioritize and manage your schedule in light of your goal projections. For example, start by including a few daily goals, a weekly goal, and a monthly goal in your daily schedule. Check in with yourself midweek or mid-month to assess whether or not you have met the goals you projected. You can adjust what goals you assign for yourself in the future based on what you have been able to complete in the short term.

Make sure that the goals you set for yourself follow the helpful acronym SMART: Specific, Measurable, Assignable, Realistic, and Time-related (Doran, 1981). There are many different variations of this acronym, but its purpose is to act as a guidepost when setting goals, keeping them as achievable as possible. The more specific you can make your goals, as SMART recommends, the more likely you are to commit and complete your goals.

You should periodically revisit and edit your goals to adjust them to your changing needs and circumstances. After setting your first set of goals, decide when you will revisit them for follow up. You can choose whatever time period works best for you, be it daily, weekly, quarterly, and so on. Remember to redo some of the brainstorming ideas we have introduced here as needed to capture any changes that have happened in your life since you last set your goals.

PRO TIP: ANTICIPATE YOUR NEEDS TO EFFECTIVELY SET GOALS

Intentional goal setting gives you control over the direction of your life. If you do not intentionally take action in your life and simply react to what happens to you, you can become burned out and feel overwhelmed. To overcome this inundation, set goals, anticipate your own needs, and plan accordingly. Recognize what workflows or other tasks are cyclical and predictable. Some examples include renewals, licenses, and subscription maintenance. Make a calendar with these tasks listed so you can predict what you should be working on at any given time. It may take a few seasons, but with a good grasp of the ebb and flow of what cyclical tasks occur, you will feel less overwhelmed and can plan appropriately for downtime to work on back-burner projects. For example, your big deal renewals and subscription agent renewals happen during known months. In the months prior to these renewals, you may not want to work on any back-burner projects and instead save them for months when you are not doing renewal prep work.

The Important versus the Urgent

Stephen Covey made popular the concept of the important versus urgent in his time management matrix, which includes the following four quadrants (Covey, 2004: 151):

Quadrant I: Important, Urgent

- Reserved for true emergencies and time-sensitive, important deadlines
- Examples: access triage, license negotiation, urgent tasks assigned by library leadership

Quadrant II: Important, Not Urgent

- Encompasses planning activities and long-term projects
- Examples: goal setting, strategic planning, data cleanup, documenting and organizing materials

Quadrant III: Not Important, Urgent

- Typically involves unexpected or non-critical interactions
- Examples: interruptions, sales calls, impromptu meetings, departmental celebrations

Quadrant IV: Not Important, Not Urgent

- Generally entails busywork or procrastination
- Examples: obsessively checking e-mail, prolonged watercooler talk, web surfing, other low-impact or easily delegated tasks, such as spending too much time crunching numbers

As an e-resources librarian, distinguishing the urgent and the important is the key to surviving the daily deluge. Much of what you encounter throughout your day—such as help tickets from patrons, e-mails from vendors, license negotiation, and processing timely payments—are all urgent and, in varying degrees, important. But if we constantly attend to only the urgent and neglect other important but non-urgent tasks, we will never make progress on our long-term goals. To maintain a healthy balance in your workday, you must continually assess the value of the tasks at hand. Ask yourself:

- Is this task truly urgent? Can it wait until tomorrow? Can it wait even longer?
- Is this task truly important? How much time do I devote to this task? Could this time be otherwise directed to something even more important?

Constant assessment of our time is needed to identify what opportunities we have to devote to our long-term goals. Train your brain to label everything according to its urgency and importance, and attempt to spend your time in a more focused manner. Consider that:

- Important and urgent tasks are unlikely to be neglected, whereas important but not urgent tasks are easy to put off. Remember to take time for planning, organization, and work toward long-term goals.

- Urgent but not important tasks eat up a lot of time. If you are looking to free up time, try to reduce the number of interruptions and superfluous meetings in your schedule. We recommend setting off a block of time where you screen calls and decline meetings so you can focus on essential tasks.
- Not important and not urgent tasks are inconsequential and often represent procrastination. While we all need breaks and mindless activities every so often, don't allow these tasks to overtake your workday.

Daily Grind

Defining Your To-Do List

After mapping out your goals, be they daily, weekly, monthly, or quarterly, you can begin to build your to-do list with them in mind. Once employed, a well-crafted to-do list can help you prioritize and direct your steps towards accomplishing your goals. An electronic to-do list can be a great time saver for an e-resources librarian. Not having to rewrite to-dos, having a centralized location for them, and being able to access the list via desktop or mobile devices is essential to efficiency and time management.

Laying the foundation of a successful to-do list includes getting in the habit of writing everything down. As Robin Hastings describes, "Every stray thought that crosses your mind, every idea you get, every request made of you by a colleague, everything that you may possibly want to remember in the future—everything gets written down" (Hastings, 2011: 25). Make a plan for where you will capture all of the information you encounter and process daily. You may need a landing place for ideas or concepts that are still in their planning stages and do not have associated actionable items. For instance, you might try keeping a bullet journal, which was specifically invented to capture any and all ideas, including to-do list items, lists, pertinent information, ideas for brainstorming, and more. Ryder Carroll, the creator of the bullet journal, has an excellent website (http://bullet-journal.com/) that includes how-to videos and everything else you need to get started.

Once you have a method of keeping track of ideas that do not yet represent actionable items, a great way to brainstorm your to-do list is to do a "brain dump." A brain dump, as its name implies, simply means to get every thought currently in your head onto paper or captured electronically. Brain dumps can be a proactive measure from which to create a to-do list, or they can be immensely helpful when you are in the thick of it and feeling overwhelmed.

Constant reevaluation of your to-do list is necessary to stay on top of daily emergencies while still making progress on your goals. At the end of each day, you should reprioritize items according to the next day's schedule; this is especially important to do on Friday in preparation for the following work week. You should update due dates to reflect reality and highlight items that need to be completed before the end of the week. Considering your existing workflow and that each new day brings its own unforeseen emergencies, we recommend just three goals each day to focus on. We will fully develop this idea in the following section.

The combination of these tactics will keep you on task and provide a rough idea of what new responsibilities you can take on. You can gain more control over your schedule and encounter fewer surprises if you have an immediate idea of how new projects will affect your existing duties and long-term goals.

Three Daily Goals and Their Subtasks

As mentioned previously, guiding your days by only accomplishing three main goals may seem underwhelming at first. However, many things pop up unexpectedly in a given day that must be attended to immediately. By focusing solely on three to-do list items, you can make progress on both your short-term and long-term goals.

So how do you decide on three goals? Exclude any immediate item that *could* be done tomorrow or later. Remember, you can still accomplish more than three goals, but your minimum is three. Beyond the immediate, try to consider which one or two goals would make tomorrow that much easier if they were done today. Sometimes within this process it is also helpful to specifically designate for yourself what you will *not* do today. What you will not do today can also take more of a philosophical slant—for example, "I will not worry about XYZ today."

Another point of consideration is breaking down your three daily goals into manageable subtasks. Some items will have more subtasks than others. With a little investment up front, a fleshed-out to-do list will serve you better than a nebulous list floating around your head. The following are three example to-do list items, broken down into actionable simplicity:

1. Work with John, the systems librarian, to determine and resolve an EZproxy error
   a. Document the issue for John: gather up relevant Listserv e-mails, screenshots, and example tickets
   b. E-mail John the details
   c. Follow up with John if no response within forty-eight hours
   d. Meet in-person with John if necessary to discuss
   e. Various follow-up
2. Complete cost analysis report for a potential database subscription
   a. Get a price quote for the database: e-mail vendor representative
   b. Analyze holdings for overlap: identify existing journal subscriptions with full-text access in potential database
   c. Gather acquisitions (cost) data for overlapping subscriptions
   d. Calculate percentages of unique and overlap content of database
   e. Prepare relevant qualitative and quantitative data to pass on to collection development staff
   f. Report to colleagues the overall value of potential subscription when compared to existing subscribed content
   g. Answer any clarification questions from colleagues
   h. Act upon colleagues' decision to subscribe or not subscribe with a vendor representative
3. Train Jack on how to run ILLiad report on potential subscription
   a. Set up Jack's ILLiad login credentials with the ILL librarian
   b. Work through training documentation with Jack to introduce ILLiad
   c. Go over an example ILL request report with Jack
   d. Show Jack how to edit the report as detailed in training documentation
   e. Show Jack how to load edited report onto SharePoint for colleagues
   f. Show Jack how to prepare qualitative data from report for collection development meeting
   g. Go over e-mailing colleagues about the report with Jack

For the above three examples, it is unlikely that you would finish these tasks completely on a given day due to your existing workload. However, these subtasks certainly could be completed over the course of several days. Breaking down goals into subtasks in such a fashion helps you to:

Conduct better time management. People are notoriously bad at estimating the amount of time required to complete tasks—so much so that the phenomenon has been given its own name: the planning fallacy. Roger Buehler, Dale Griffin, and Michael Ross define the planning fallacy as "the tendency to hold a confident belief that one's own project will proceed as planned, even while knowing that the vast majority of similar projects have run late" (Buehler, Griffin, and Ross, 1994: 366). With little investment up front, an expanded to-do list will serve you better than a nebulous list floating around your head. You can only manage or prioritize what can be measured.

Handle interruptions more easily. With an expanded to-do list, it is easy to identify and keep track of subtasks that can be completed quickly between interruptions and unexpected tasks.

Track progress and feel accomplished. Progress towards a goal is easy to track with a well-made to-do list, and being able to check off items will bolster your confidence and feeling of accomplishment. Plus, documenting what you are able to accomplish in a single day can help you to better understand and organize your time in the future.

By committing to an expanded to-do list with itemized subtasks, you can proactively prepare for lighter days in your schedule. Even a free hour here or there can be effectively utilized better when you know exactly what you need to and can accomplish within that hour. This will prevent you from spending extra hours at work playing catch-up when you should be at home resting from your already hectic schedule.

Developing Habits

Loosely defined, habits are actions that are regularly repeated and that are difficult to break. They are the foundation of goals and, when strung in a series, form the heart of a routine. There are varying opinions on how long it takes to form a habit—some estimate three weeks, others two months—but once established, habits have a major impact on the events that comprise your daily life. Habits can be life-changing in good or bad ways, and the habits you choose to develop over time can influence your goals in a very positive manner. Deciding what habits to develop requires a very honest look at where you currently are in life. How does where you are compare to where you want to be?

When you create goals for yourself, some can seem initially out of reach because of the bad habits currently running your life. For example, you may only have time to exercise in the morning but your habit of staying on social media late into the night negatively affects your ability to wake up in time to do so. Reexamine your goals in light of any new habits you could form. We all wish there were more than twenty-four hours in a day, and forming a new habit (or kicking a bad one to the curb) may help free up time in your schedule.

Here are some areas where you may want to develop habits to free up time in your schedule:

- Your morning or evening routine
- What time you get up or go to bed

- Your commute or when you arrive at and leave work
- How often you check e-mail at work
- How often you chat face-to-face with colleagues at work

Another important aspect of developing habits or routines is to consider your personality type and associated inclinations. It is very important to be able to sift through the influx of time management recommendations and be able to spot what works for you. Equally important is to know what particularly motivates you. When developing habits, some experts recommend to not work against your natural tendencies, such as being an early riser or night owl. In her book *Better than Before*, Gretchen Rubin lays out a framework for four personality types—Upholder, Obliger, Questioner, and Rebel—that she refers to as the "four tendencies." Rubin uses her four tendencies to categorize how various people respond to expectations placed upon them and argues that the better we know ourselves and our tendencies, the better we can succeed at developing habits and improving our lives.

If you do want to push against your natural tendencies and challenge the way you have always done something, be sure that you are setting healthy expectations for yourself. Goal setting and habit formation are meant to evoke feelings of accomplishment and self-betterment in your life, not to be a source of discouragement. Everyone has difficulty focusing on their progress while not aiming for perfection and it may be helpful to talk out the reasoning behind your thought processes with a trusted friend or colleague.

Friends and colleagues can also be a good source of accountability, although accountability can be accomplished in different ways for different people. Some will benefit most from sharing their goals with an accountability partner. Others who are not motivated by outside influence may hold themselves accountable by periodically reviewing their goals and checking in with themselves. No matter your personal preferences or tendencies, ask yourself, "How will I hold myself responsible for achieving the goals I have set and forming the habits I want and need?"

Even after building accountability into your process, it is likely that you will struggle to maintain your good habits. The following are some recommendations for staying positive throughout the growth process:

- Don't be afraid to change your commitments if something is proving to not be the right choice for you right now. Update your goals and habits accordingly.
- Proactively decide how you will respond if you struggle with a habit. It can be very helpful to have a script of positive self-talk ready to go in your mind.
- We are often harder on ourselves than we are on our close acquaintances. When you struggle, have compassion for yourself and try to direct your thoughts about your setback as you would when speaking to a friend about her setback.
- Work towards progress and not perfection.
- Keep moving forward and try not to let any setbacks cloud your vision of success.

Time Management Tips and Tricks

There are thousands of time management books and manifestos out there, many of which we have listed under Additional Readings and Resources at the end of this chapter. This section covers some of the best tips and tricks we have found applicable for e-resources librarians.

Touch It Once Rule

The "touch it once rule" states that if a task can truly be done from start to finish within five minutes, you should just do it now. This can especially be applied to filing papers and managing e-mail. For example, after you initially read an e-mail, take the necessary action to move the e-mail along the path of completion. This could be:

- Immediately respond because it will take less than five minutes
- Sort, file, or color-code
- Add to to-do list
- Delete spam or other irrelevant e-mails. Better yet, immediately and consistently unsubscribe to unnecessary e-mails.

The touch it once rule allows you to feel a sense of accomplishment from small wins and saves you headspace from frequently considering whether or not you will complete a simple task.

Scheduling Margins

Surprises or urgent tasks are practically guaranteed to pop up in your day. Where possible, you should build a cushion or margin into your daily schedule to account for any unexpected time commitments. Thirty minutes to an hour is a good start, but further analyze your schedule to identify other margin needs. Does your colleague always want to chat for ten minutes after your weekly meeting? Can you block off the thirty minutes before lunch each day to account for any help tickets that are taking longer than usual to resolve? Surprises can be less stressful if you have cushions of time already allotted for them.

The Pomodoro Technique

The Pomodoro technique, named after the tomato-shaped kitchen timer used by the technique's creator, involves working in focused, twenty-five-minute chunks of time before taking a five-minute break (Cirillo Company, 2016). After you complete four chunks, referred to as *pomodoros*, give yourself a longer break, and then repeat the process. You can adjust your *pomodoro* and break lengths to what works for you. For example, some people complete fifty-minute *pomodoros* with a ten-minute break in between. *Pomodoros* are meant to help you truly focus on one task and to not become distracted by multitasking. Bonnie Osif conducted a literature review of multitasking from an information professional's perspective. From the studies she reviewed, she concludes that "generally the evidence is not strongly supportive of multitasking, but at the same time it is acknowledged that multitasking is a fact of life, and there may be ways to make it more efficient" (Osif, 2007: 203).

Try the Pomodoro technique when you work through your e-mail. Complete twenty-five minutes of work, and then give yourself a short five-minute break. Try to make a game out of managing your e-mail to see how many you can take care of in a short amount of time. Truly focus only on the task at hand and mentally sort through your e-mails as you go, either focusing on many quick responses or just a few longer responses.

Parkinson's Law: Ever-Expanding Tasks

Parkinson's Law is the adage that "work expands so as to fill the time available for its completion" (Parkinson, 1955). Proactively watch for this phenomenon and prevent it from eating up the margin in your day. When you do work on an ever-expanding task, limit the time you spend. Holding yourself accountable to self-imposed limits for ever-expanding tasks is a habit and a skill that will need to be developed over time.

E-mail management is a great example of an ever-expanding task and offers ample opportunity to practice your time management. The following are recommendations for effectively managing your e-mail:

- Only spend thirty minutes with your e-mail two to three times per day and only to address urgent or important issues.
- Don't expect to get to or stay at "inbox zero" (i.e., all e-mail read, answered, and organized); this is unrealistic for e-resources librarians. Despite inbox zero being a popular concept in the corporate world, we truly believe that the influx of e-mails which e-resources librarians receive for sales, renewals, help tickets, and so on often defeats our best efforts at reaching inbox zero. This is the nature of our work. There may be seasons where we could reach inbox zero, but the majority of the time we receive more e-mails than we can physically respond to in a single day.

Proactively limiting the amount of time you spend in your inbox each day and having realistic expectations about your number of unread e-mails will prevent your inbox from dictating your schedule.

Time Logs: Moving toward Your Ideal Work Week

One way to deeply analyze your time and how it is spent is to create a time log. While not for everyone, completing a time log can help you discover where you are *really* spending your time and can allow you to make a conscious effort to improve certain tendencies. You may discover that you dawdle in your inbox too often or that you are spending too much time on inefficient workflows. The findings from your time log can then help you design your ideal work week. Laura Vanderkam extensively analyzes her clients' time logs in her books *168 Hours: You Have More Time Than You Think* and *What the Most Successful People Do Before Breakfast.*

To create your time log, start by evaluating how you currently spend your forty-hour work week and dissect the different tasks that you spend your time on. Get a rough idea in your head for how you will label your time spent. Time logs are generally drafted in increments of thirty minutes to an hour. To record your time log, you could use a simple spreadsheet or a mobile app, such as Toggl Time Tracker. To label your time, you could create very detailed labels or very broad labels, such as "managing staff," "licenses," "acquisitions," "help tickets," and so on. An initial time log could span one week, although an entire month may be more representative of how you truly spend your time. Your time log can be as detailed as you want. Just consider what will be to your benefit as you analyze your time log for any patterns or opportunities to change your schedule and habits.

Upon completion of your time log, compare your time log to your preconceived notions of how you spend your time and see if you can identify any misconceptions. Did you

Table 10.1. Example E-Resources Librarian Time Log

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 AM	Plan week	Plan day	Plan day	Plan day	Plan day
8:30 AM	Plan week	E-mail	ABC License	E-mail	E-mail
9:00 AM	E-mail	E-mail	ABC License	Help tickets	Work one-on-one with staff
9:30 AM	E-mail	Meeting	ABC License	Help tickets	Work one-on-one with staff
10:00 AM	Help tickets	Meeting	Web surfing	E-mail	E-mail
10:30 AM	Help tickets	Focus on long-term goal	Web surfing	Work one-on-one with staff	Chat with colleague
11:00 AM	Work one-on-one with staff	Help tickets	Chat with colleague	Work one-on-one with staff	Lunch
11:30 AM	Work one-on-one with staff	Focus on long-term goal	Meeting	Focus on long-term goal	Lunch
12:00 PM	Lunch	Lunch	Meeting	Lunch	Meeting
12:30 PM	Lunch	Lunch	Lunch	Lunch	Meeting
1:00 PM	Help tickets	Help tickets	Lunch	Help tickets	Meeting
1:30 PM	Work one-on-one with staff	Focus on long-term goal	Focus on long-term goal	Focus on long-term goal	Meeting
2:00 PM	Work one-on-one with staff	Meeting with vendor	Work one-on-one with staff	Work with colleague on project	Chat with colleague
2:30 PM	Help tickets	Meeting with vendor	Work one-on-one with staff	Work with colleague on project	Chat with colleague
3:00 PM	Chat with colleague	Meeting with vendor	Work one-on-one with staff	Work with colleague on project	E-mail
3:30 PM	Work one-on-one with staff	Meeting with vendor	Work one-on-one with staff	Work with colleague on project	Help tickets
4:00 PM	Work one-on-one with staff	Help tickets	Focus on long-term goal	Focus on long-term goal	Help tickets
4:30 PM	E-mail	E-mail	E-mail	E-mail	Plan next week
5:00 PM	Commute home	Commute home	Commute home	Commute home	Commute home

realize how much (or little) time was spent on urgent tasks or on your long-term goals? Is there an area with which you are unhappy, such as procrastination or spending too much time with an overly chatty coworker?

From the answers to these questions, you can now design a draft of your ideal work week. Using the same grid that you used for your time log, identify the non-negotiable

tasks that you know must be done and plug those into your forty-hour grid. Add in your base job duties, any standing meetings, lunches, or any other item that occurs regularly in your schedule. For example, it may be helpful to use your time log to estimate the number of hours you spend in meetings in a given week. Make sure that you have addressed the important and urgent in your design draft. Leave some margin or space for the urgent; at least thirty minutes per day is a good estimate for the unexpected. Once you have included all regularly occurring items or events in your forty-hour grid, you can see what available space you have throughout your work week to attend to your goals. With your goals broken into subtasks, you can tentatively schedule various subtasks throughout your week that will move you closer to completing your goals. At the end of the week, assess how well you were able to meet your commitments and schedule next week in light of any adjustments. Remember, work towards progress and not perfection when designing your ideal work week.

Key Points

- A goal is a predetermined end result that you direct your efforts towards and wish to achieve in either the short term or long term.
- Setting goals in both your personal and professional life can keep you on track and help prevent burnout.
- Goals should be periodically revisited and edited to adjust to your changing needs and circumstances.
- Breaking down goals into subtasks helps you to conduct better time management, handle interruptions more easily, and log progress for self-betterment.
- Habits can be life-changing in good or bad ways and the habits you choose to develop over time can influence your goals in a very positive manner.
- The touch it once rule, scheduling margin throughout your day, the Pomodoro technique, and observing Parkinson's Law are all helpful time management strategies for e-resources librarians.
- Completing a time log can help you discover where you are *really* spending your time and can allow you to make a conscious effort to improve certain tendencies.

References

Buehler, Roger, Dale Griffin, and Michael Ross. "Exploring the 'Planning Fallacy': Why People Underestimate Their Task Completion Times." *Journal of Personality and Social Psychology* 67, no. 3 (September 1994): 366–81.

Carroll, Ryder. "Bullet Journal." Last modified 2017. http://bulletjournal.com/.

Cirillo Company. "The Pomodoro Technique." Last modified 2016. https://cirillocompany.de/pages/pomodoro-technique/book/.

Covey, Stephen R. *The 7 Habits of Highly Effective People: Restoring the Character Ethic.* New York: Free Press, 2004.

Doran, George T. "There's a S.M.A.R.T. Way to Write Management's Goals and Objectives." *Management Review* 70, no. 11 (November 1981): 35–36.

Hakala-Ausperk, Catherine. "Invest in Yourself." *American Libraries* 41, no. 4 (April 2010): 51–53.

Hastings, Robin. "Using GTD to Get Things Done at Your Library." *Computers in Libraries* 31, no. 8 (October 2011): 23–26.

Hogarth, Margaret. "Avoiding Burnout." In *Emotion in the Library Workplace*, edited by Samantha Hines and Miriam L. Matteson, vol. 37, 71–98. Bingley, United Kingdom: Emerald Publishing Limited, 2017.

Osif, Bonnie A. "Multitasking." *Library Administration and Management* 21, no. 4 (September 2007): 199–204.

Parkinson, Cyril Northcote. "Parkinson's Law." *The Economist*, November 19, 1955. Last modified 2017. http://www.economist.com/node/14116121.

Rubin, Gretchen. *Better than Before: Mastering the Habits of Our Everyday Lives.* New York: Crown Publishers, 2015.

Vanderkam, Laura. *168 Hours: You Have More Time than You Think.* New York: Portfolio, 2010.

———. *What the Most Successful People Do before Breakfast: And Two Other Short Guides to Achieving More at Work and at Home.* New York: Portfolio, 2013.

Additional Readings and Resources

Belsky, Scott, et al. *Manage Your Day-to-Day: Build Your Routine, Find Your Focus, and Sharpen Your Creative Mind.* Edited by Jocelyn K. Glei. Las Vegas: Amazon Publishing, 2013.

English, Larry P. "The 7 Habits of Highly Effective Information Professionals, Part 5." *DM Review* 14, no. 7 (2004): 18–21.

Fay, Robin. "Stressed? Organize (Or Reorganize) Your Work Space, Part 1." *Georgia Library Quarterly* 50, no. 4 (Fall 2013): 11–12.

Hakala-Ausperk, Catherine. "What Do You Want to Do? Setting Goals to Renew Your Career." *American Libraries* 48, no. 6 (June 2017): 58–62.

McKeown, Greg. *Essentialism: The Disciplined Pursuit of Less.* New York: Crown Business, 2014.

Rubin, Gretchen. *The Four Tendencies: The Indispensable Personality Profiles That Reveal How to Make Your Life Better (and Other People's Lives Better, Too).* New York: Harmony Books, 2017.

Tebbutt, David. "One Thing at a Time, or the Truth about Multitasking." *Information World Review* no. 251 (2008): 9.

Tracy, Brian. *Eat That Frog! 21 Great Ways to Stop Procrastinating and Get More Done in Less Time*. San Francisco: Berrett-Koehler Publishers, 2007.

Vanderkam, Laura. "Manage Your Time." Last modified 2017. http://lauravanderkam.com/books/168-hours/manage-your-time/.

CHAPTER 11

Training Others

IN THIS CHAPTER

- Writing effective documentation
- Listing what can be delegated
- Explaining how to train effectively
- Applying the feedback loop
- Leading a team of specialists as an e-resources librarian
- Analyzing your role as a leader

AS E-RESOURCE WORK EVOLVES AND MULTIPLIES, many libraries are moving beyond a single e-resources librarian to manage the workload. They are either tapping into existing staff who have the time and associated skills, or they are developing teams of library specialists with the e-resources librarian as team lead. With support as an e-resources librarian, you can delegate the influx of urgent but not necessarily important tasks while gaining more time in your schedule to devote to long-term goals that will have a great impact on your library and its patrons. If you are not lucky enough to currently receive such support at your library, we hope you can start a discussion with your leadership based on the information we provide.

Creating Effective Documentation

Whether you are going on vacation, preparing for a successor, or you simply need to document a procedure for future reference, documentation is invaluable for an e-resources librarian. It is especially essential when training others, and, as we will discuss later, should

go through several iterations to ensure that it is helpful to all parties. Here are some recommendations for creating effective documentation for both yourself and others:

- Start with a rough draft for yourself. Working from this, you can then scrutinize your draft while considering the following: What would someone unfamiliar with this workflow need to know? What would that person be confused by? Have I given explanations in the simplest terms possible?
- Write your document without embellishments; be short and to the point. The voice of your documentation should be similar to technical writing. Use simple grammar, subheadings, and imperative statements to save space. Remember to include important background information at the start of the document.
- Include screenshots, images, or other illustrations to increase the clarity of your document. Screenshots can help your audience orient themselves within the steps you have outlined.
- Use additional formatting for important points in your documentation, such as bold text, italics, underlined text, highlighted text, colored text, or even the shapes function (for arrows and boxes) of your word processor.
- Have someone semifamiliar with the workflow go over your draft instructions to see if they make sense to that person. It should not be someone who will be working from your documentation, just an extra set of eyes to catch mistakes or point out things that need further clarification.
- Above all else, get feedback from the trainees once they have used your documentation to further improve its clarity.

The Art of Delegation

We will discuss who to delegate to and how to delegate in the next sections. Here we will start by brainstorming which of your tasks can be delegated. Challenge yourself to think outside the box and relinquish control of certain, less-than-significant tasks. Remember that done is better than perfect and more than sufficient for many e-resources tasks. Here are some example e-resource management tasks that could be delegated:

- Paying invoices
- E-mailing vendors for invoices or title lists
- Answering help tickets
- Data cleanup
- Subscription maintenance access checks
- Tracking access in the knowledge base
- Populating your ERM with historical data
- Organizing physical or electronic files
- Downloading, formatting, and organizing usage statistics
- Registering with vendors
- Calculating cost per use reports
- Web page creation or maintenance
- Research guide creation or maintenance
- EZproxy configuration file maintenance

Training others for e-resources tasks requires forethought and patience. Yes, you could simply verbally tell your trainees how to do something and see if they have any questions. However, it is far too easy to fall down rabbit holes with e-resources by making decisions based on poorly assumed information. Couple this fact with any hesitancies due to lack of understanding and your trainee could very well ask you one hundred questions about a simple task. Before you begin training someone on a project or ongoing workflow, you will need to complete some prep work which includes:

Walking through the task yourself. Look for any potential trouble spots, and mentally catalog the concepts that you will need to train your trainee on.

Create thorough documentation. Successful training is not just verbal; it anticipates questions and concerns and documents the answer for your trainee. Normalize any data if necessary, especially in spreadsheets. Make the materials which your trainee will be working with as clear and concise as possible.

Predicting Trainee Success

Training others for e-resources requires forethought due to the complexity of the work. You want to balance the time invested to train people on a task with how much you will be able to delegate to them in the future, based on what they are able to learn and perform. To be certain, not everyone can pick up all e-resources tasks that can be delegated. Some will have learning propensities or comprehension issues that limit their training and potential contribution. The following are some personal abilities and propensities that may predict success with e-resource management tasks:

- Good memory
- Attention to detail
- Excel skills
- Comfortable operating without mastery of a subject
- Can make sound decisions with little information
- Able to grasp complex concepts with only hypothetical examples
- Bounces back quickly after setbacks
- Does not take critical feedback personally
- Goes beyond just the assigned task and catches larger issues
- Can be trusted to report larger issues to trainer and follow up on assigned tasks

Even if your trainees do not exhibit these traits, you can reevaluate if they are a good fit to work with you after a few test runs. It can also be helpful to verify with your trainees your observations of their learning propensities. For example, do they agree that they have trouble learning concepts without specific examples? Sometimes helping your trainees become cognizant of their propensities can help them adjust and meet the requirements of the task at hand.

How to Train Effectively

While there are many different ways to potentially train someone, all require patience and clearly defined expectations. Your trainees cannot ask too many questions. Be sure

to encourage questions both as you train them and as you follow up with them. You will need an open door policy to facilitate your relationship. No matter their personal propensities, your trainees should always feel comfortable asking you questions. It can be helpful to reinforce their confidence by telling them that e-resources librarians never stop learning and that each day brings something new that you have never encountered before.

Set aside plenty of time to sit with your trainees at their desk so that they can work through your instructions on their computer; this helps reinforce their familiarity with the task. Begin by reviewing the documentation you have created for them and encourage them to write down their own notes on the document as you go along. Take your time and frequently stop as you work through your instructions to verify their understanding.

Where appropriate, introduce background information as you go along to help build up their understanding of e-resource work. For example, if you encounter an issue with a vendor's metadata, give examples of similar metadata issues with other vendors. Encourage their curiosity and speak as plainly as possible, fully recognizing that you may very quickly wade into territory beyond their comprehension. As you develop your relationship with your trainees, try to make mental notes about what concepts you have introduced to them and if they are retaining and utilizing the information. Is their overall understanding of e-resource work increasing? Introducing background information outside of the immediate training context requires a delicate balance that encompasses how much the trainees can conceptually digest, how much it can benefit them in the future, and not overwhelming them with information they do not need or is too difficult to grasp at their developmental stage.

Once you finish working through your instructions with your trainees, walk through many examples together. Complete a sizable portion of the task to ensure that they fully understand what they need to do. It can be helpful, especially at the beginning of the relationship, to sit with them for extended periods of time. They may think they understand at the moment but may become confused when you walk away.

Finally, give them a stopping point about halfway through the project where you can follow up on their progress and verify that they are following instructions. Also, give them an opportunity to ask you questions and make sure they have not fallen down any rabbit holes or encountered any unsuspected issues.

The Feedback Loop

Constructive feedback, which flows both ways, can make or break a collaborative work environment. As a trainer, you need to hold yourself accountable for providing feedback to your trainees. Your trainees, in turn, need to feel like their voice is heard and to be comfortable enough with you to give feedback about your training style and the projects that they are working on. A successful feedback loop, running from trainer to trainee and back to trainer, can create a collaborative environment where you could potentially learn and benefit from your trainee's feedback.

When you check in with your trainees at their designated stopping point, ask if the documentation you have created needs to be updated. Do your instructions need additional screenshots? Do you need to change or update any wording or descriptions? This can save time if you need to train someone else on the same project in the future.

No matter how simple the work, it is a good idea to verify that your trainee is meeting the correct standards. Some people are easily bored by monotony and will not follow through on small tasks. Others can be forgetful when confronted with many small tasks and items to check off. You should complete several projects with trainees before trusting them to dot all of their i's and cross all their t's. One way to check on their quality of work is to preemptively mark some examples while you are completing your project prep work. You can check on these examples after your trainees have finished with them to make sure that they followed through correctly. Another option is to have your trainees copy you on the e-mails they send to patrons and vendors until you feel comfortable.

If you do need to follow up with your trainees because they did not complete a task correctly, have patience and set clear expectations. There are a multitude of reasons why a trainee may struggle with e-resource work: aptitude, confusion, negligence, or the legitimately difficult nature of e-resources. After all, people don't know what they don't know, and your trainees may even have difficulty putting their struggle into words. Even trainees who have seemingly mastered one area or concept may suddenly struggle with another area or concept.

When trainees do not meet your expectations, be sure to examine your role in what played out. Did you explain the concept well in light of their learning propensities? Do you need to adjust your habits and make yourself more available for follow-up questions? Be sure to quickly admit when you are wrong and attempt to make amends for the situation. You will earn their respect and trust by doing this, and it will signify to them that you provide a safe place to make mistakes and hopefully they will reciprocate. It can also be helpful to freely admit when you do not know an answer to their question. Tell them that you will get back to them later and then share what you learned. The better you can display that e-resource work is complex and ever-changing, the quicker your trainees will feel comfortable in the work which they collaborate with you on.

Leading a Team of Specialists as an E-Resources Librarian

Even if you are not a manager, this section can improve the interpersonal dynamics you have with the people you train. Time management, as we discussed in Chapter 10, is extremely important for team leads. To have your team operate like a well-oiled machine, you must proactively address day-to-day duties along with long-term projects. Build dedicated time into your schedule for planning both short-term and long-term projects for your team.

Collaborative work done in a team environment can create many different dynamics depending on the personalities and the various strengths and weaknesses of the team members. Many personality and strength inventories exist to help you learn more about your team members, including the Myers–Briggs Type Indicator, the True Colors Personality assessment, the StrengthsFinder assessment, and the Enneagram of Personality. Just be sure not to typecast someone into a test result; not everyone fits neatly into a preconceived label, and you should use the personality inventories mentioned for brainstorming observations, not to learn absolute, immovable truths about someone.

Transparency is important for proactively managing difficult team dynamics, especially concerning workload. When roles and responsibilities are not clear, the team

PRO TIP: RESOURCES FOR NEW MANAGERS

If you are feeling overwhelmed by the number of management books available in the world, the *One Minute Manager* series by Kenneth Blanchard is a great place to start. We have also listed other books in the Additional Readings and Resources section that can help you develop healthy interpersonal relationships with your team members.

may struggle with misinformation, misunderstandings, and misconstrued intentions. Increased transparency creates accountability and boosts morale, allowing everyone to see their role in the puzzle and understand why a project is being tackled in a certain way. There are new tools emerging around collaborative project management that can help with this. We recommend checking out project/team management tools such as Trello, Asana, and Wunderlist (soon to be sunsetted and incorporated into Microsoft To-Do). These tools vary greatly in functionality, but many offer:

- Task management features, such as progress bars and alerts
- Collaborative to-do lists
- Instant messaging or group chat
- Discussion boards
- File sharing

For example, with Wunderlist you are able to connect with other users to assign them to-do list items, which you can still view yourself. You can also instant message, create subtasks, attach files, and take notes on individual to-do list tasks.

Do your research and adapt what works for your specific needs. Keep in mind, these tools are meant to simplify your existing workflow, not complicate it.

Being a Great Manager

In his book *Boundaries for Leaders,* Henry Cloud identifies three principles leaders need to be cognizant of to ensure their team's success:

1. What is important is always being attended to—attention
2. What is not important or destructive is not allowed in—inhibited
3. There is an ongoing awareness of all the pieces required to fulfill the task—working memory (Cloud, 2013: 36)

Cloud explains that many of the corporations who hire him to address their leadership issues are missing one of these three key principles: attention to the important, inhibiting the unimportant, and attending to working memory. However, the organizations he sees meeting their goals have leadership who continuously ensure that the three principles are addressed.

Of the many leadership manifestos circulating in the world, this one in particular has struck us as highly relevant for e-resource management work in a team setting. Team

lead e-resources librarians should address Cloud's three principles by asking themselves the following:

Are We Attending to the Important?

Question: Does everyone on my team have an opportunity to contribute? **Answer:** If not, you may need to work on designing additional projects so that your team members have work to do even outside of busy seasons. Data cleanup projects and subscription maintenance access checks are good examples.

Question: Does everyone on my team know how to contribute, and have I provided them with all of the resources that they need to do their jobs? **Answer:** If not, make it a priority to address the knowledge gaps that exist on your team. You may need to spend more time with team members one-on-one and tailor additional training to their learning propensities. Individually ask your team members, "What do you feel like you could understand better?" At the same time, ask yourself, "What can I do differently in my training to help them learn?"

Question: Have I optimized my team in regards to who does what tasks? **Answer:** Frequent evaluation of your team's projects and performance is a key to success. Try not to reward those who are able to comprehend more than others by giving them more work. Instead, invest more time and energy into your lower performers. As long as the team dynamic does not suffer, it can be acceptable for some team members to have fewer areas of expertise than others.

Are We Inhibiting the Destructive and Unimportant?

Question: Is anyone on my team not pulling their weight? **Answer:** If so, you may need to pay special attention to this issue until it is resolved. Remember your other team members are watching to see what you allow. Even if they do not act the same, watching a peer perform below their potential can lower team morale. Once you identify an issue, monitor the team members closely to see if they are still missing deadlines and verify if the quality of their work has suffered. Give them feedback in the moment where applicable, but if issues persist, have a one-on-one meeting with them to signify that this is an issue that will be addressed and monitored. During the meeting, listen to their side of the story, tailor your response to their specific concerns, and concisely state expectations and consequences for their actions. Follow up with your team members as needed, especially if they improve. Let them know that you acknowledge their improvement and that you are happy to see them performing to their potential.

Are We Attending to the Working Memory of the Team?

Question: Does everyone on my team have a good understanding of our larger purpose within the library and our commitment to our patrons? **Answer:** The purpose and commitment of your team are best addressed frequently and casually throughout your daily interactions with your team. The reasons behind extensive, tedious back-burner projects can get lost in the shuffle. Remind your team of the results of their hard work and how it directly impacts your library's patrons.

Key Points

- When creating effective documentation, keep your instructions clear and concise, include images for clarity, and get feedback from your trainees to improve the document.
- Challenge yourself to consider what you can delegate to someone else. Remember done is better than perfect.
- When training, have patience and clearly defined expectations. Take your time and verify their understanding. Encourage your trainees to ask many questions.
- A successful feedback loop from trainer to trainee and back to trainer can create a collaborative environment, where you could potentially learn and benefit from your trainee's feedback.
- Give trainees a stopping point when working on projects or conducting tasks so you can evaluate their progress to see if it meets the correct standards.
- Increased transparency creates accountability and boosts morale, allowing everyone to see their role in the puzzle and understand why a project is being tackled in a certain way.
- As Henry Cloud recommends, leaders should attend to the important, inhibit the unimportant, and attend to the working memory of the team.

Reference

Cloud, Henry. *Boundaries for Leaders: Results, Relationships, and Being Ridiculously in Charge*, *1st ed*. New York: HarperCollins, 2013.

Additional Readings and Resources

Blanchard, Kenneth H., and Spencer Johnson. *The One Minute Manager, 1st Morrow ed*. New York: Morrow, 1981.

Carnegie, Dale. *How to Win Friends and Influence People, Rev. ed.* New York: Simon and Schuster, 1981.

Covey, Stephen M. R. *The Speed of Trust: The One Thing That Changes Everything*. New York: Free Press, 2006.

Hart, Katherine A., and Tammy S. Sugarman. "Developing an Interdepartmental Training Program for E-Resources Troubleshooting." *Serials Librarian* 71, no. 1 (2016): 25–38.

CHAPTER 12

Support Systems

IN THIS CHAPTER

- Exploring various support systems for e-resources librarians
- Listing professional groups, conferences, and Listservs
- Discussing techniques for cold-calling colleagues

THE WORLD OF ELECTRONIC RESOURCE MANAGEMENT is overwhelming. Despite e-resources forming a significant portion of library collections for over two decades, libraries both large and small are still struggling to adjust their organizational and technical infrastructure to successfully shepherd e-resources through their life cycle. With new and exciting advances in authentication methods, cataloging, library service platforms, usage standards, and access models, this struggle may not be over for quite some time. However, there is a silver lining: You are not alone in your struggle.

Regardless of your library's size, budget, or technical capabilities, resources and support systems are available to help you make the most of your e-resources. In this chapter, we explore the various places you can turn to for answers and advice, including support centers, professional groups, Listservs, and more. We hope the following list, while not exhaustive, serves as a good starting point for any problem you encounter.

Vendor Support Centers and Training

Vendors want you to be successful using their products. As a result, many will provide support centers, dedicated customer service representatives, and training to teach you how their products work. This is especially true for ILS, ERM, discovery layer, and library service platform (LSP) vendors. Don't hesitate to take advantage of these services, especially if you need help troubleshooting an issue.

Online Support Centers

An online support center is a vendor-created website that houses all the documentation available on a certain product or suite of products. It generally includes help guides or tutorials, definition lists, frequently asked questions, reports about known issues, and a way to contact the vendor, either through a generic help form or by logging into the support center and submitting a help ticket. Examples of support centers include:

EBSCO Discovery Service: https://help.ebsco.com/interfaces/EBSCO_Discovery_Service

Primo: https://knowledge.exlibrisgroup.com/Primo

Summon: https://knowledge.exlibrisgroup.com/Summon

Alma: https://knowledge.exlibrisgroup.com/Alma

Online support centers are great for independently investigating a question about a product or for finding ready-made documentation to share with coworkers. However, with the plethora of information available on their websites, they are not as useful for quickly answering a pressing question.

Training

Many vendors provide product training for their customers. This could either be in-person, over the phone (usually with a shared computer screen), or via webinar. Training is great both for gaining an overview about a particular product and for doing a deep-dive into a specific service or feature. Training sessions can also be customized to your knowledge needs, so there is less extraneous information to filter out. Whether you are new to the product or just need a refresher on its features, be sure to ask your vendor if it can set up a training session just for you.

Professional Groups, Conferences, and Listservs

Getting involved in the library profession is probably the single best way to keep up to date with electronic resource management. There are many ways to get involved, each with a varying level of commitment. Below, we have listed some professional groups, conferences, and Listservs to get you started.

Professional Groups

Professional groups offer spaces for like-minded individuals to get together to discuss the issues facing electronic resources, acquisitions, and technical services in libraries today. Beyond being a good place to meet smart and talented people, professional groups are a great way to give back to the library community through service projects and initiatives. Additionally, they often offer free or paid webinars to keep you updated on new library developments. Many regional- and state-level associations have interest groups dedicated to electronic resources in libraries. While we only list national groups below, we highly recommend checking out your regional interest groups as well.

- Association of College and Research Libraries (ACRL) Technical Services Interest Group
- Association for Library Collections and Technical Services (ALCTS) Electronic Resources Interest Group
- Library Information Technology Association (LITA)
- NASIG (formerly, the North American Serials Interest Group, Inc.)

National Conferences

Conferences are great for keeping abreast of new developments in the library field, especially in regards to new products, technology, workflows, and management techniques. Conferences give you a chance to learn from the successes and failures of others and to form a strong network of colleagues, who you can turn to for advice in the future.

Highly Recommended Conferences

- Electronic Resources and Libraries
- Charleston Library Conference

Other Conferences of Interest

- American Library Association Conference
- EBSCO User Group Meeting
- Ex Libris Users of North America (ELUNA) Conference
- NASIG Annual Conference
- UKSG Conference

Listservs

Listservs are a good place to turn to for discussion and advice from peers. Listservs are generally dedicated to a particular product or topic (e.g., licensing, serials, acquisitions, etc.) and provide members with a forum to ask questions, raise issues, solicit advice, make announcements, share information, or respond to any of the above. Many also maintain archives of old discussion threads so you can see what has previously been said on an issue. Even if you do not actively participate in the Listservs, simply following the discussion threads can be enlightening.

Electronic Resources Management and Licensing Listservs

- alcts-eres@lists.ala.org
- eril-l@lists.eril-l.org
- LIBLICENSE-L@LISTSERV.CRL.EDU
- LIS-E-RESOURCES@JISCMAIL.AC.UK

Acquisitions and Serials Listservs

- acqnet-l@lists.ibiblio.org
- SERIALST@LISTSERV.NASIG.ORG
- seruinfo@list.niso.org

- lita-l@lists.ala.org
- LIB-STATS@JISCMAIL.AC.UK

Discovery Layer Vendor Listservs

- eds_partners@ebscohost.com (EDS)
- primo@exlibrisusers.org (Primo)
- summonclients@lists.summon.serialssolutions.com (Summon)

Other Vendor Listservs

- alma@exlibrisusers.org
- EZPROXY-L@oclclists.org
- KB-L@listserv.oclclists.org
- serials-solutions+general@groupspaces.com
- serials-solutions+manage@groupspaces.com

Cold-Calling Professional Colleagues

Aside from professional groups, conferences, and Listservs, successful e-resources librarians maintain a personal network of colleagues to go to for mentoring, discussion, and advice. These networks are often built during the professional activities listed above; however, situations may arise where you need to reach out to colleagues to whom you have never been introduced. For instance, your library may be contemplating investing in a new product or service and wish to learn how other libraries that currently have the product or service enjoy it. Similarly, you may be encountering a unique logistical or legal situation—for instance, licensing resources for a small extension campus—and want to know how other libraries handled it in a similar situation. If none of the librarians within your personal network have experience with what you are dealing with, it may be a good idea to cold-call other librarians to solicit their opinions and advice.

Cold-calling colleagues does not need to be a stressful prospect. Librarianship is, first and foremost, a service profession. Most librarians are more than willing to take the time to answer questions. When reaching out to other librarians for the first time, it may be helpful to introduce yourself via e-mail rather than a telephone call. Be sure to clearly state who you are, what institution you are from, and why you are reaching out to them. If you prefer to discuss the situation over the phone—for instance, if it is a particularly complicated or sensitive situation—you can politely ask if they have a moment to speak with you during the next couple weeks. By scheduling the telephone call ahead of time, you guarantee the librarian will be available, undistracted, and willing to answer your questions. It also gives the librarian the chance to refresh his or her memory about the topic, so that you get the best possible information rather than hastily remembered impressions.

Key Points

- Many support systems are available to help you, including vendor support centers, training, professional groups, conferences, Listservs, and other professional colleagues.

- Getting involved in the library profession is probably the single best way to keep up to date with electronic resource management.
- Successful e-resources librarians maintain a personal network of colleagues to whom they can go for mentoring, discussion, and advice.
- Try sending an introduction e-mail before cold-calling a librarian. This guarantees the librarian will be available, undistracted, and willing to answer questions.

Appendix 1

License Review Checklist

The following are terms or clauses that are generally included in most license agreements. This list is by no means comprehensive, and you do not need to add any missing clauses to the license you are reviewing unless you would like to do so. We have divided them into three sections: Basics, Deal Breakers (State Law or Local Policy Requirements), and Desired Terms. We encourage you to rearrange the order of the terms or add additional terms in accordance with your institution's needs.

Disclaimer: This checklist is meant for your general information and should not be taken as legal advice. We highly suggest you consult with a certified lawyer if you need help regarding your licenses, legal contracts, or disputes.

BASICS	
Term	☐ Subscription (annual) ☐ One-time purchase ☐ Other:
Authorized site(s)	☐ Licensee's participating institutions defined as all geographic locations and/or campuses ☐ Other:
Authorized users	☐ Currently enrolled students, faculty, staff, visiting scholars, independent contractors, and walk-in patrons affiliated with Licensee ☐ Alumni ☐ Other:
Fee schedule	☐ Clearly addresses all applicable fees and discounts and any related due dates for invoicing or fees due at beginning or end of contract ☐ Notes:
Termination	☐ License terminates at specified date ☐ License terminates at non-renewal ☐ License requires advanced notice of _____ for termination ☐ Notes:
DEAL BREAKERS (STATE LAW OR LOCAL POLICY REQUIREMENTS)	
Governing law	☐ Licensee's state/county/country ☐ License silent or broad ("applicable U.S. law") ☐ Other (more negotiation needed) ☐ Notes:
Indemnification	☐ Licensor agrees to indemnify and no license requirements ☐ Licensee agrees to indemnify (more negotiation needed) ☐ Silent ☐ Notes:

Limitation of claims	☐ No limitation on claims ☐ Limited (more negotiation needed) ☐ One year or less (more negotiation needed) ☐ Silent ☐ Notes:
Non-disclosure	☐ No confidentiality/non-disclosure clause ☐ Confidentiality/non-disclosure clause included (more negotiation needed) ☐ Notes:
Breach	☐ Unauthorized use is clearly defined ☐ Upon becoming aware of suspected breach, timeline of how long the Licensor has to notify Licensee is clearly defined ☐ Upon becoming aware of suspected breach, timeline of how long the Licensee has to notify Licensor is clearly defined ☐ Timeline of how long Licensee has to resolve breach once confirmed is clearly defined ☐ Licensor requires Licensee to police user actions (more negotiation needed) ☐ Licensor holds Licensee accountable for actions of third-party users (more negotiation needed) ☐ Silent ☐ Notes:
Dispute resolution	☐ Silent ☐ Third-party arbitrator/mediator (more negotiation needed) ☐ Other restrictive resolution method (more negotiation needed) ☐ Notes:
Warranties	☐ Licensor warrants it has appropriate rights and permissions to distribute content ☐ Licensee warrants it has authority to enter in contract ☐ Licensee agrees to warranties/representations on behalf of authorized users (more negotiation needed) ☐ Notes:
Early termination due to insufficient budgetary allotment from government	Recommend for public institutions with multiyear agreements or total cost over locally defined high dollar threshold ☐ Need to include ☐ Do not need to include

DESIRED TERMS	
ADA compliance	☐ ADA compliant ☐ Not ADA compliant ☐ Notes:
Authorized Uses	☐ Authorized uses are clearly defined ☐ Licensor requires Licensee to notify Authorized users of Authorized Use ☐ Licensee required to use best efforts to notify Authorized users of Authorized Use (change to use reasonable efforts) ☐ Notes:
Concurrent users	☐ One seat ☐ Unlimited seats ☐ Other:
Authentication	☐ IP and EZproxy log-in ☐ Username and password: ☐ Other:
Interlibrary loan	☐ Allowed ☐ Not allowed ☐ Silent ☐ Notes:
Online course reserves	☐ Allowed ☐ Not allowed ☐ Silent ☐ Notes:
Usage statistics	☐ COUNTER ☐ Non-COUNTER ☐ Not available ☐ Notes:

Perpetual access	☐ Allowed ☐ Not allowed ☐ Silent ☐ If allowed: ☐ Where applicable, associated fee is clearly defined ☐ Licensor participates in archiving systems such as LOCKSS, CLOCKSS, or Portico ☐ Upon termination Licensor will provide Licensee continuing access to Licensed Materials via the Licensor's servers ☐ Upon termination Licensor will provide Licensee continuing access to Licensed Materials by supplying the Licensee with electronic files ☐ Notes:
Modification of terms	☐ Any changes to this Agreement must be made in writing and must be signed by Licensee and Licensor ☐ Silent ☐ Notes:
DESIRED TERMS	
Confidentiality	☐ No confidentiality clause ☐ Confidentiality clause included (more negotiation needed) ☐ Notes:
Privacy	☐ Licensor is in compliance with applicable laws and regulations such as HIPAA, FERPA, etc. ☐ Licensor will uphold confidentiality of individual users ☐ Licensor will not transfer any user data under any circumstances without written permission from Licensee ☐ Silent ☐ Notes:
Text and data mining	☐ Allowed ☐ Not allowed ☐ Silent ☐ Notes:

Scholarly sharing	☐ Allowed ☐ Not allowed ☐ Silent ☐ Notes:
Quality of service	☐ Licensor will compensate Licensee in the event of a significant downtime ☐ Licensor will notify Licensee of scheduled maintenance ☐ Silent ☐ Notes:
Withdrawn materials	☐ Licensor will promptly notify Licensee about any Licensed Materials which are withdrawn ☐ Silent ☐ Notes:

Appendix 2

Worksheet: Questions You Need Answered

1. What documentation exists? (Things to look for: username/password spreadsheets, handbooks, manuals, etc.)

2. What are the established workflows?

3. Who are my subordinates, and what are their primary skills?

Name:	Skill set:
Name:	Skill set:
Name:	Skill set:

4. What are my access points?

5. What are my authentication methods?

6. Who are my vendors?

7. What are my purchased and licensed resources?

8. What is my help ticket system?

9. Who negotiates and signs my licenses?

10. What do my licenses contain?

Appendix 3

Worksheet: People You Need to Meet

1. Technical Services Staff
   a. What e-resource documentation exists? Where can I find it?

   b. Could you describe for me the established workflows for ordering, purchasing, and cancelling information?

   c. Which vendors do we work with and/or order from the most? Do you have their contact information?

2. Access Services (Circulation) and Reference Staff
   a. How do you report problems regarding e-resources?

   b. Which e-resources are the most popular?

   c. Which e-resources do you have the most difficulty/problems with?

3. Interlibrary Loan (ILL) Staff
   a. How do you report problems regarding e-resources?

   b. Do you have a list of vendors approved for fulfilling ILL requests?

4. Collection Development Staff
   a. How is collection development currently being handled? Has this changed in recent history?

   b. How much control, if any, do collection development staff have over their funds?

   c. How do patrons let library staff know about resources they want the library to acquire?

d. What are the current pressure or pain points for resources which the library wants to acquire? Is there an established wish list?

5. Library Systems
   a. What authentication system(s) is the library using?

   b. Whom do I contact when changes need to be made to EZproxy (if applicable)?

   c. Whom do I contact for help with issues related to access?

6. Institution's IT Department: If your institution's IT handles the technical aspects of your library, we suggest you also ask the questions we assigned to the systems librarian, in addition to the questions below.
   a. Whom should I contact when an urgent problem arises?

   b. How is important IT information relayed to the library? Could you include me in the list of contacts?

7. Campus or Library Legal Counsel
   a. Who is responsible for the negotiation and approval of licenses?

   b. Who signs our licenses? Are different people authorized to sign a license depending on the money amount?

8. Library Director
   a. What is the library's strategic plan for the next five years? Ten years?

   b. How do e-resources fit within that plan?

   c. What new initiatives involving e-resources are under way? What initiatives would you like to see under way?

Index

About the Authors

Holly Talbott is the electronic resources and licensing librarian at the University of Arizona and was previously the electronic resources librarian at Lasell College and e-serials specialist at the University of Texas at Arlington.

Ashley Zmau has over five years' experience working with electronic resources. She works in the Acquisitions Department of the Dallas County Community College District and was previously the assistant librarian for e-resources at the University of Texas at Arlington and the electronic resources management librarian at Southern Methodist University.