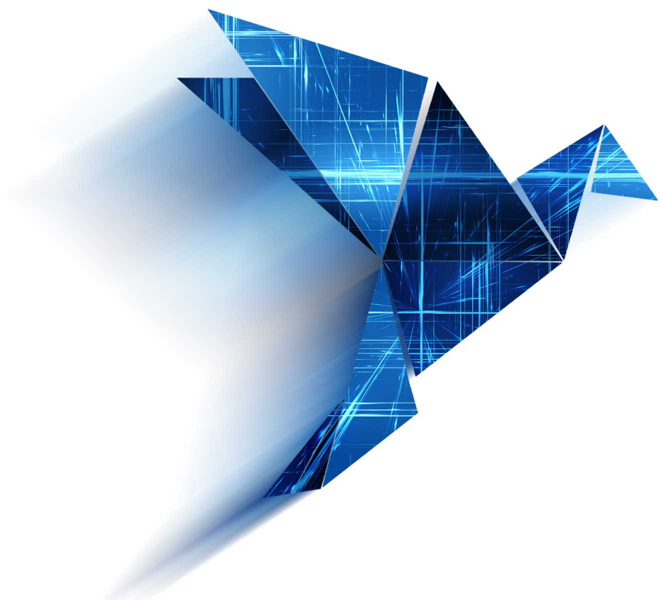
LEADERSHIP FOR THE FUTURE

Lessons from the Past, Current Approaches, and Future Insights



Edited by

THOMAS MENGEL

Leadership for the Future

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Cambridge Scholars Publishing

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Dedicated to all our grandchildren.

May they become better stewards of the future

than we may have been.

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Foreword

Imagine you are a 33-year adult who discovers through genetic testing that you have an identical twin sister, you never knew existed! That is the story of Katey Bennett and Amanda Dunford, who were separated at birth in South Korea, but adopted by different American families. When Amanda was 7 or 8 years old, her mother told her she had a twin sister.

Fast forward a quarter-century later. Amanda is a Naval Petty Officer, stationed in Norfolk, Virginia. She signed up for *23andMe*, a DNA testing service, with the hope of finding her twin. Meanwhile, Katey who lives in California had no idea that Amanda existed. Katey took a DNA test in September 2017, to see what diseases she might be prone to.

Katey's results came back immediately. "You have one direct relative, a 100 percent DNA match, your identical twin sister, Amanda." During their 1st phone call, they spoke for nine hours. Katey and Amanda realized they both had a lot in common. They both failed Algebra the same year. They both passed their driver's test on the 2nd try. They both wore their hair in the same style. That November, NBC's TODAY show arranged for them to meet each other for the first time on live TV. Finding each other after 33 years, they are not going to let anything separate them again.

Leadership for the Future tells a similar story of identical twins separated at birth, namely leadership and futures studies. Both siblings came of age in the 20th century but remained mostly unaware of their identical DNA. Both have grown their communities, each by their respective scholars and practitioners. Both seek to help individuals, organizations, and communities understand the road ahead to create better outcomes.

Now Thomas Mengel, the editor of this stunning compendium, has brought these two fields together, to examine what they have in common, and consider what sets them apart. Whether you are a leadership or a foresight practitioner, or a scholar in either or both fields, I am confident this landmark volume will introduce you to a parallel world you never knew existed through the ultimate family reunion of leadership and futures studies!

Jay Gary, PhD
Chair, Association of Professional Futurists
Washington, DC
January 18, 2021

INTRODUCTION

THOMAS MENGEL

Overview

Leadership skills like anticipation, foresight, visioning, creative and complex problem-solving, engaging communication, social innovation, and participatory facilitation are some of the most wanted competencies in any job market. Yet, creative and competent candidates of that calibre appear to be scarce (McGlochlin 2017; Zaidi 2020). "We want and can do more than ever before. But as always this depends on being able to do so" (UNESCO, n.d.).

Leadership education and development programs often focus on quick fixes by developing skills and behavioral approaches that are profitable and that were successful in the past. Most programs today don't realize that even tomorrow's problems may quickly become history in the context of exponential developments in various fields of practice, including artificial intelligence, neural networking, quantum computing, data mining, automated production, robotic, autonomous transportation, bioengineering, and healthcare (Friedman 2009; Lustig and Ringland 2018; Zaidi 2020). Even preparing leaders for "trend mapping and analysis" is insufficient and may even confuse any sincere efforts to "future-proof" our leadership processes (Zaidi 2020, 95). "Moving forward", truly innovative long-term approaches to leadership from and for the future are urgently needed (Mengel 2020).

In this book, completed during a global pandemic that – although it was part of many futures scenarios of the past – most of us were not well prepared for, twenty authors from around the globe present, explore, and discuss such approaches from multi-disciplinary, multi-cultural, and planetary perspectives for the 21st century. They embrace a variety of diverse values, cognitive maps, definitions, and frameworks. Some approaches are more academically oriented, discussing and developing theoretical perspectives; others focus on the practice of leadership in and for the future and offer practical guidelines for implementation.

To enable this variety of perspectives to evolve and to be offered for critical discussion and application, the invitation to participate and the call for submission had been published through various channels of several international futures, foresight, and leadership organizations and associations. Further, the selection criteria for chapters focused on safeguarding academic integrity while being inclusive of the broadest and most diverse set of creative ideas and concepts.

Structure and Content

In Part I, we describe the development of leadership theory and models. In particular, we harvest lessons from the past that may inform leadership models that are futures ready.

> In the first two chapters, we explore the evolution of leadership theory. Timothy E. Dolan focuses on describing the modern theory development and on presenting possible new directions. Based on his earlier doctoral dissertation, Christian Couturier and I offer a leadership metamodel which is derived mainly from reflection on and content analysis of more than 2,000 years of leadership writing. Steven Walker presents a case study from 2008, offering an early application of what could serve as model of Futures Thinking.

Part II explores the “value shift” (Paine 2003) discernable in current approaches of leadership for the future. We will critically discuss how this shift may have contributed to an equalization of leadership in theory and practice.

> Values and mindfulness are discussed as key elements of a potential shift of leadership and organizational focus in Chapters four and five of Part II. First, I comprehensively summarize my research on values-oriented leadership, which is based on and inspired by Victor Frankl’s work (1959-2007) on meaning and values. Second, Charlene D’Amore discusses how mindful leadership can transform individuals, organizations, and society as a whole.

> Further, various paradigm shifts and their impact on leadership are explored chapters six through eight. First, Carol Nemeroff and Elizbeth Fisher Turesky discuss networking particularly from a feminist lens. Then Antonio Jiminez-Luque presents an

epistemological and cultural turn from a Eurocentric to an intercultural approach. Finally, Shelbee Nguyen Voges describes social justice as a core concept for leadership and higher education.

In Part III, we draw from the field of futures-studies and foresight to present and discuss a variety of approaches for what leadership in and for the future might look like.

Anticipation, imagination, and futures intelligence are explored as key principles of leadership approaches for the future in the first three chapters of this section. Mattia Vettorello and James Burke invite us to innovate forward. Based on an exploratory review of leadership literature and a computer aided content analysis of a science fiction trilogy, I present leadership perspectives for the future. Tyler Mongan and Kevin Reddy propose six pillars as core building blocks of leadership future intelligence.

The role of artificial intelligence (AI) and knowledge in leadership processes for the future are investigated and discussed in the next three chapters. Roger Spitz and Rauli Nykaenen explore the nature of decision-making in the future and the agency of AI within a suggested existential framework for leadership. Elissa Farrow discusses how organizations and leaders need to adapt for AI futures. Tom Meylan compares leader-centred with knowledge-driven leadership in light of “the Unexpected”.

Finally, the last three chapters of Part III shed light on particular applications of foresight in the context of leadership. Verne Wheelwright offers foresight guidelines and recommendations to small businesses and Jan Klakurka and Candice Chow discuss values-infused foresight as core requirement of good governance. In the final chapter of this book, I summarize my earlier work on exploring meaningful futures by offering an integrative framework of guidelines and recommendations for values- and futures-oriented leadership that may help individuals, organizations, and communities to jointly imagine and create a meaningful future.

Acknowledgements

A project like this would not have been possible with the support and contributions by many:

First, I am grateful to my home institution, colleagues, and co-learners – otherwise also known as “students”, but that wouldn’t do their role justice in helping *me* learn also – at Renaissance College and the University of New Brunswick, Fredericton, Canada, for their support and for helping me grow as a scholar, educator, and practitioner.

Second, various international futures and leadership (education) associations provided me with a global home and network in those interdisciplinary fields and readily supported my call for chapters. In particular, I am grateful to Jay Gary, past Chair of the Board of the Association of Professional Futurists (APF) for his encouragement and for contributing his foreword.

Third, many scholars and practitioners responded to the call and were interested in the project. I am particularly grateful to those who demonstrated commitment and patience by responding to my various editorial comments, suggestions, and – hopefully not too many – “requests”; your unique perspectives, your persistence in “sticking with the project”, and your adaptability have made the result a hopefully valuable and meaningful contribution to the fields of leadership and futures studies in theory and practice.

Fourth, I am thankful to the publisher, Cambridge Scholars Publishing, and their competent staff for accepting, supporting, and for guiding this project through the process from start to finish.

Last but by no means least, I am grateful to my wife Marion, who not only encouraged and wholeheartedly supported my work on this project, but who also helped me with many details in the book that where crucial to making it whole and complete; particularly given that most of the project was completed from my home office during the COVID-19 pandemic, I could not have done this without the support and patience of a loving partner.

Overall, all that went well with this project is mainly due to the tremendous support and contributions of all of you. Any shortcomings remaining or surfacing after publication are my responsibility to bear as editor.

Conclusive Remarks

Wisely drawing from lessons of the past, critically assessing where we are and how we got here, we urgently need to develop a comprehensive "futures literacy" (UNESCO n.d.) and the respective "anticipatory systems and processes" (Miller 2019). These are necessary to help us create a variety of valuable visions for the future and the leadership that is effective in jointly creating and implementing a meaningful future for us all. I hope, this book will offer a wide variety of theoretical approaches and practical guidelines for both!

Grande-Digue, NB, Canada
June 4, 2021
Thomas Mengel

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I.

Development of Leadership Theory and Models - Lessons from the Past, Models for the Future?

The Evolution of Leadership Theories and Possible New Directions

Timothy E. Dolan

Abstract

As any student of leadership theory can attest, the massive literature around it has yielded ever more sophisticated contributions but no unified field theory. This is due to several factors that make this a quixotic quest including cultural, organizational structure and technological shifts that have taken place and continue to reframe what leadership means. This piece organizes these theories into a rough chronology to orient and provide a means to forecast new directions and potentially radical new conceptions of what constitutes leadership over coming generations. Latter sections describe an already emerging perspective referred to here as, "Feminized Leadership", and anticipating AI as being on the cusp of meeting all contemporary notions of leadership, and culminating with the organizational shift from recursive work now being supplanted with cybernetic systems, to "adhocracy" with its being suited to project work directed organizationally by a fairly anonymous administrative core.

Keywords

Leadership; leadership theory; evolution of leadership theory; diffused leadership; servant leadership; feminized leadership; AI leadership; adhocracy

1.0 Preface

The concept of "Leadership" is slippery, and prone to a complex array of cultural and technological influences, yet is also a compulsive area of inquiry evidenced by the several generations of multiple theories. The shear volume of the literature that surrounds it is testament to its long being fetishized as a key to comprehending the possible trajectories of social becoming. Its ambiguous yet real influence as an organizational and social driver continues to be a topic of fascination with its futures an area well worth pursuing.

The focus of this chapter is first on the evolution of leadership theories from ancient notions of leaders as elders of merit demonstrated by success in battle or the hunt, or anointed by God(s), moving to more formalized contemporary understandings of collaborative relationships such as “servant leadership and diffused team leadership as well as numerous other variants culminating in the potential emergence of what is called here as “feminized leadership”. The ultimate aim is to demonstrate the dynamic and fluid nature of leadership manifested in what is now a wide range of organizational contexts.

There is no longer a one-size-fits-all holy grail for determining a leader though one would not know this given the claims by popular books that continue to grow in volume. This growth in the occurrence of book titles on leadership is shown in this graph generated by Google’s Ngram viewer, which draws upon a database of some five million volumes published up to 2008 (Lin, et al, 2012).

Figure 1. Relative Proportions of Book Titles on Leadership 1908-2008

Neil deGrasse Tyson (2020) observed there is an inverse relationship between a subject's literature, and what we actually know about it. By that logic, we appear to be knowing more and more about less and less on the topic of leadership. Over many decades, theories of leadership have appeared like the new skin of a snake supplanting what were once a vibrant part of the corpus, to be shed with a new layer shining beneath the old. Thus we may be asking the wrong question and instead of investigating what makes a leader, we should ask instead, what makes us as a culture determine leaders?

Figure 1 above verifies that leadership literature variability by key individual organizational types, (political, business and military) are so few relative to the generic leadership titles as to be insignificant.

There are certain persistent elements that can be useful in understanding leadership. Among the most prominent is the connection between leadership and merit with "merit" being both pragmatically and normatively determined.

Then there is the binding of leadership with power. Power itself can be categorized as coercive, reward, legitimate, expert, or referent). These five categories of power are common components of any initial analysis of power and society. Each type is briefly summarized below:

- **Coercive Power -** This kind of power involves the usage of threat to make people do what one desires. In the organizational set up, it translates into threatening someone with transfer, firing, demotions etc. it basically forces people to submit to one's demand for the fear of losing something.
- **Reward Power -** As the name suggests, this type of power uses rewards, perks, new projects or training opportunities, better roles and monetary benefits to influence people. However an interesting aspect of this type of power is that, it is not powerful enough in itself, as decisions related to rewards do not rest solely with the person promising them, because in organizations, a lot of other people come into play like senior managers and board.
- **Legitimate Power -** This power emanates from an official position held by someone, be it in an organization, bureaucracy or government etc. The duration of this power is short lived as a person can use it only till the time he/she holds that position, as well as, the scope of the power is small as it is strictly defined by the position held.

- **Expert Power -** This is a personal kind of power which owes its genesis to the skills and expertise possessed by an individual, which is of higher quality and not easily available. In such a situation, the person can exercise the power of knowledge to influence people. Since, it is very person specific and skills can be enhanced with time; it has more credibility and respect.
- **Referent Power -** This is a power wielded by celebrities and film stars as they have huge following amongst masses who like them, identify with them and follow them. Hence, they exert lasting influence on a large number of people for a large number of decisions; like from what car to buy to which candidate to choose for a higher office in the country. (Management Study Guide, 2020)

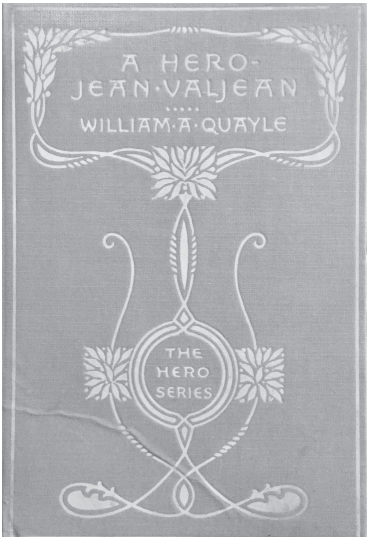
Next is the curious instance of how transformational leaders so often arise from outside of the dominant culture. To be clear closer analysis indicates these cultural outsiders are actually culturally proximate, sufficiently close to metaphorically see the picture without being in the picture. This outsider perspective comes to be a potent means to effectively transform both organizations and cultures respectively.

Finally there is the recognition that leaders require willing followers. This permeates the evolution of leadership theories beginning with one of the oldest, in terms of formal theoretical treatment, the so-called "Great Man Theory", and then on to "trait theory", behaviorist, situational leadership, contingency theory, transactional and transformational leadership following the framework established by Bolding, Gosling, Maturano and Dennison, (2003), augmented by King's, (1990) chronology and Baur and Erdogan eds (2015) leader management exchange theory (LMX).

2.0 The Evolution of the "Great Man" Theory

The most persistent and still potent leadership narrative still persistent in the popular imagination is referred to as the "Great Man" theory. Within it there has been early debate between whether leaders being born or made. The debate would have little relevance outside of dinner conversation however, for when subjected to systematic examination both tended to depend upon a post-hoc narrative of destiny, either by divine mandate, or, for the "made school", by pluck. It would yield a still robust biographical and autobiographical literature for and/or by successful leaders that would often only amount to self-justification, comprised of a vague mélange of references to strong will, seizing opportunities and the cultivation of relationships. Over time this literature has become more sophisticated and subject to analyses that would reveal an interesting new set of factors ranging from stature, birth order and month of birth (Gladwell, 2008). In time great man theory would come to come into systemic academic gaze morphing into a more sophisticated treatment known as trait theory.

Figure 2. Example of Heroic Literature circa 1919



Previous generations have linked leadership with heroism, civilization's enhanced, popularly embraced extension of competence as a hunter. The hero model of great man leadership has itself evolved from bravest hunter, to most skilled warrior, to saint, etc.. Some might include enlightened despots such as Fredrick the Great, Peter the Great, and the Meiji Emperor as heroic figures for modernizing their respective realms. A century earlier the models were people of character and "exemplars of virtue". The figure above is an example of inspirational literature commonly read by school children to fortify their moral education. This particular book was presented to this author's great uncle in 1919 by jis Sunday school teacher. He would go on to become a teacher at a military school. In fact, he was young Donald Trump's teacher.[1]

[1] Trump was sent there for punching his music teacher. According to family lore the great uncle found young Trump to be arrogant and a bully.

3.0 Trait Theory

Trait theory, simply put, is the identification and analysis of what qualities are perceived as common denominators among leaders. This attempt at enumerating traits soon expanded into determining the skills also associated with leadership thus synthesizing the born vs. made dialectic carried over from the great man theories. Stogdill, 1974 provides a useful example of the mix of traits and skills believed to be most common among leaders everywhere:

Table 1 Leadership Skills and Traits (Stogdill, 1974)

Traits	Skills
- Adaptable to situations - Alert to social environment - Ambitious and achievement-orientated - Assertive - Cooperative - Decisive - Dependable - Dominant (desire to influence others) - Energetic (high activity level) - Persistent - Self-confident - Tolerant of stress - Willing to assume responsibility	- Clever (intelligent) - Conceptually skilled - Creative - Diplomatic and tactful - Fluent in speaking - Knowledgeable about group task - Organised (administrative ability) - Persuasive - Socially skilled

This short list of attributes raises what can be called “the eye of the beholder” problem. These are qualities that are determined by the observer and could just as easily be interpreted in a negatively depending upon the interests and state of mind of the witness. “Assertive” can be also interpreted as “pushy. “Organized” can be “compulsive” and so on. Still, trait theory can lead to determining what might inspire followers in given situations. Ultimately though, traits are not consistent reliable predictors as attributes in one organization or culture may not translate into effectiveness in another.

4.0 Behavioral Theories

In shifting first to leaders traits and inevitably what leaders do, the literature goes to the leader/follower relationship in organizational interaction. The classic work of David McGregor in his “Theory X vs. Theory Y” analyses became standard reading in management schools everywhere. Strictly speaking McGregor’s focus was on management and not leadership per se. The distinction is very significant in that, broadly speaking, managers metaphorically oversee the day-to-day “rowing” of an organization towards a given objective while the pure-type leader sets the actual course. Nonetheless, the work was embraced for providing something of a unified field theory for its analyses of motivation. It formalized the assumptions that then would lead to the choice of tools used to get workers to reach objectives. Put simply McGregor’s theory broke down the carrots and sticks schools of motivation. These assumptions carried by managers about human nature are summarized in Table 2 below:

Table 2. Breakdown of Manager Beliefs About Human Nature and Work

Theory X managers believe that:	Theory Y managers believe that:
• The average human being has an inherent dislike of work and will avoid it if possible. • Because of this human characteristic, most people must be coerced, controlled, directed, or threatened with punishment to get them to put forth adequate effort to achieve organizational objectives. • The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, and wants security above all else.	• The expenditure of physical and mental effort in work is as natural as play or rest, and the average human being, under proper conditions, learns not only to accept but to seek responsibility. • People will exercise self-direction and self-control to achieve objectives to which they are committed. • The capacity to exercise a relatively high level of imagination, ingenuity, and creativity in the solution of organizational problems is widely, not narrowly, distributed in the population, and the intellectual potentialities of the average human being are only partially utilized under the conditions of modern industrial life.

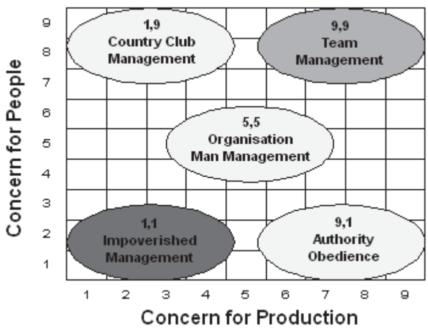
(McGregor, 1960)

Note that theories X and Y, emphasizes on leader attitudes and ultimately their behaviors, instead of focusing on the perceived qualities of leaders.

The influence of McGregor's work is still profound spinning off numerous contemporary variants such as the "leader as coach" implicit in Steven Covey in his "7 Habits" works, and to a prolific literature on servant leadership covered by Peter Senge, Margaret Wheatley, Ken Blanchard and others. The common denominator is ultimately expressed by the metaphor of the servant leader being charged with providing an environment in which others can apply their talents to their fullest extent. (Greenleaf, 2002), (Spears & Lawrence, (Eds.), 2016) (Talgam, 2009).

The behavioral school of leadership would generate a plethora of theories on management leadership that would come to manifest linkages between organizational mission attainment and leadership type. Mouton and Blake's 1964 organizational grid arrayed mission (defined by them as task production) and concern for an organization's people illustrated in Table 3:

Table 3. Mouton and Blake's Managerial Grid



By charting behavioral styles and relating those found in various organizational environments, Mouton and Blake have advanced leadership studies, highlighting the efficacy of healthy team development, accounting for the values of people within an organization and shaping them to more effective production. They contradict a one-size-fits-all leader, which ignores the unique attributes of specific organizational culture and purpose. For instance, United Parcel Service (UPS) operated on a military-style structure with disciplined coordination to accomplish its missions. When they tried to adopt a more "high-touch" style of management, efficiencies fell and UPS returned to military inspired management. That noted, the team-centered approach has now been widely adopted almost everywhere.

The diffused leadership style configured to sub-organizational functon now seems obvious with the subsequent advances in leadership theory, which would be reinforced and enhanced with the rise of the contingency/situational schools.

5.0 Contingency/Situational Leadership Theories

A new generation heralded the contingency/situational school of leadership studies. Fiedler, 1958 has been seen as the progenitor of leadership not just defined within organizational type but also by their circumstances. These elements would include:

- How well the leader and followers got along.
- How structured or fluid the task was to be performed
- How much power or authority the leader possesses.

For Fiedler, leaders are either relationship oriented or task oriented. If relationship oriented they would be more effective in situations where leader-follower relations are considered good, and the task roles clearly structured, regardless of leader power. This would be the case with, for instance a construction project foreman who coordinates the activities on site. Task oriented leaders also perform well when their power or authority was strong, but the task unstructured as in military combat. Fiedler's work is a precursor to describing "adhocracy" in which leadership is highly diffused and largely localized to specific projects.

Hersey and Blanchard, 1977 would refine this theoretical line, adding the critical element of considering the level of participant/stakeholder involvement in the decision-making. This would come open an important emphasis on decision-making as a subsidiary area of leadership studies. It was an immensely influential area of emphasis in the 1970s and 1980s, that would come to be known as reference group theory in sociology and pluralistic decision-making in political science circles. Coplin and O'Leary (1972) provided useful models for understanding the 3 dimensions of stakeholder influence. The 3 dimensions include: The power the stakeholder has in relation to the decision maker (interest * capability * will) [2] the

[2] This is one of Rudolf Rummel's power equations that can be usefully applied here with each variable weighted from 0 (no interest or capability or will) to 3 (existential interest, capability or will). Note that because of the multiplicative nature of the formula, if any element is 0 then that stakeholder's power is 0. If any element is less than 1, then overall power is diminished. If any element is more than 1, even

relationship between stakeholder and decision-maker, (Peer, Constituent, Ally or Adversary), and the salience of an issue for the stakeholder on which decision(s) is to be made (ranging from unimportant to existential importance). The relationship dimension in this model is interesting in that if the relationship is that of peer, for instance, between that of a chief executive and a legislative leader, then the decision point is future oriented, (My support in the future in exchange for your support now). Coplin and O'Leary's model is particularly useful in political decision-making where the practical constraints on leaders is explicit in constitutionally derived limited and divided governance where power is formally shared between branches of government.

Tannenbaum and Schmidt's Leadership Continuum (1973) further refined the contingency/situational approach by recognizing that appropriate leadership style depended on the dynamic circumstances an organization might face. An autocratic "telling style" would be appropriate in an emergency situation where quick actions need to be taken as in a natural disaster. A persuasive "selling" style might be better suited to mobilize a sales force to believe in their product or service. The consultative style is marked by the process described in the passage above referencing the work of Coplin and O'Leary in which a decision maker consults with stakeholders as one sees in political deliberation or corporate shareholders meeting. The fully democratic style outlined by Tannenbaum and Schmidt seems less conventionally a leadership style than one taking the role of discussion moderator with a group consensus being the primary goal. This style approaches that of a feminized leadership model to be discussed later.

John Adair's Action-Centered Leadership Model (1973) is yet another elaboration on the contingency/situational leadership approach. Here the focus was on task accomplishment by focusing on leaders working with managers to define the task and plan, ensure resources, track progress and adjust when necessary in conjunction with a management team. The management team has the delegated duties of maintaining discipline, team spirit, motivating, delegating to sub-units, ensuring communication, and supporting team development. Individual members are expected to keep personal problems confined outside of work, support each other and focus

fractionally, then overall power is enhanced. When incorporated into Coplin and O'Leary's decision making model the power dimension for each element ranges from 0 to 3.

on personal and professional development. The leader role is thus that of chief coordinator in organizations that are complex and multi-tiered.

6.0 "Servant Leadership" and Leader-Member Exchange Theory

Moving from the "Great Man" though the behaviorist and contingency/situational leadership theories is a trend away from focusing on the leader and a wider accounting for the leader-follower relationship. This includes attention to organizational type, culture and purpose as well as situational contexts. The rebalancing of the leader-follower relationship goes to a wider focus to include stakeholder expectations, confidence and trust in the leader. Thus leaders are obliged to cultivate willing followers by demonstrating accountability to effectively wield their authority. This is hardly new as it is at the heart of the social contract theories of Hobbes, Locke and Rousseau going back to the 18th century. It is also at the heart of the ancient Chinese concept of the "Mandate of Heaven" where rulers are deemed legitimate by the prosperity or suffering of the people. Rule legitimized by the consent of the governed is found in government, corporate boardrooms, and even in organized sports at both at the market and stockholder levels. The "servant-leader" is thus a recapitulation of the virtuous exemplar of classical Greece or the social consciousness of the "superior man" as conceptualized in Confucian culture. That noted, it was Greenleaf, 1977 (revised and expanded in 2002) that provided a highly focused articulation of the servant leader model that has gained broad currency in recent times. It is also a core element of Leader-Exchange theory (LMX) that focuses on multidimensional roles that can and do manifest in various organizational contexts (Schriesheim, Castro, and Cogliser. 1999; Greguras, and Ford, 2006).

While the servant-leader model can be viewed as a useful innovation, but also might be viewed as aspirational at best and utterly naïve at worst at least given the often political and competitive nature of conventional organizational culture, a matter that will be further addressed below. Now there are variations of servant leadership that emphasize personal sacrifice. Smaller military units such as the platoon or squad levels operate on a species of collective servant leadership in that individual members of highly cohesive groups are willing to sacrifice themselves for others (Turner, & Hamstra, 2018).

A primary element of servant leadership theory is, like transactional leadership theory and further refined in Leader Member Exchange (LMX) theory is its recognition of how followers see their roles and the role of the leader. This personal anecdote highlights the role of followers in creating leaders. In the early 1980s I lived in the southern Japanese city of Fukuoka teaching business English for Time-Life Educational Systems. Like other expat teachers living in Japan, mornings and afternoons were largely free since classes mostly held in the evenings for those who had day jobs. Japanese television was largely incomprehensible and so one tended to read quite a bit from a floating informal library of paperbacks that circulated among the foreign community. One didn't have a large selection to choose from, so a rather eclectic mix passed through our hands. One was a book authored by a man who could see auras. It was not a book I would have read had there been more around, but one read what one got. It was purportedly non-fiction, and written in a plain, engaging style, in which the author thankfully didn't attribute his ability to mystical forces instead just reporting what he saw. It was a passage in the book's last chapter that stuck with me. He related happening to be at an airport when an Indian guru arrived surrounded by a large number of devotees who apparently accompanied him on the flight. He witnessed the most brilliantly radiant aura he had ever seen. When the guru was separated from his retinue, and ushered to a glass partitioned cubical by the immigration officials, his aura dimmed and became quite ordinary. In that single episode the book's author realized that the charismatic leader requires the adoring energy of their followers to maintain their role. This also makes perfect sense in so many other "idol worship" contexts from movie stardom to popular culture celebrity where the follower identifies themselves as "fans" or "devotees". Indeed, one is not a pop star without the pop. There is nothing otherwise innately magnetic about them in their everyday personas except that they might represent the romantic visions that their followers ascribe to them. A variation on this theme was famously depicted in that 1939 classic treatment of the Frank Baum book, The Wizard of Oz where the "wizard" literally employed smoke and mirrors to create awe and fortify his authority. The dependency of many leaders to operate exclusively on authority is also evident in the Han Christian Anderson classic, *The Emperor's New Clothes*. It is a tale that could only have been written after the European Enlightenment when authority of all kinds could be questioned without risking a high probability of being shunned at best or losing one's life at worst. Such is the power of a collective focusing on a persona that represents something larger than themselves.

7.0 Transformational Leadership

A new perspective on leadership looks to the capacity of a leader to utterly change organizations and even entire cultures. Transformational leadership theory was first posited by James McGregor Burns, 1978, and greatly elaborated upon by Bass, 2010. Stone, Russell and Patterson, 2004, suggest a distinction between the otherwise similar concepts of servant/LME and transformational leadership. Simply put, the former focuses on cultivating the follower relationship, while transformational leadership carries on organizational culture. However, it might be a false dichotomy given the already established requirement for any species of leadership to include willing followers. It is here that transformational leadership might better be described in relation to transactional leadership, which has roots in more traditional management theories going back to at least McGregor's "Theory X and Theory Y" approaches to the leader/follower relationship.

There are key differences between motivations that drive the transactional as opposed to the transformational perspectives. Covey, 1992 describes this distinction between transactional and transformational leadership thusly:

Table 4. Transactional vs. Transformational Leadership

Transactional Leadership	Transformational Leadership
• Builds on man's need to get a job done and make a living • Is preoccupied with power and position, politics and perks • Is mired in daily affairs • Is short-term and hard data orientated • Focuses on tactical issues • Relies on human relations to lubricate human interactions • Follows and fulfils role expectations by striving to work effectively within current systems • Supports structures and systems that reinforce the bottom line, maximise efficiency, and guarantee short-term profits	• Builds on a man's need for meaning • Is preoccupied with purposes and values, morals, and ethics • Transcends daily affairs • Is orientated toward long-term goals without compromising human values and principles • Focuses more on missions and strategies • Releases human potential – identifying and developing new talent • Designs and redesigns jobs to make them meaningful and challenging • Aligns internal structures and systems to reinforce overarching values and goals

Comparison of Transactional and Transformational Leadership (Covey, 1992)

One can see that under Covey's model there is a lineage to goes back to theory Y and its focus on developing human potential as the useful motivational priority for leaders to inculcate among their followers. This along with his earlier book The 7 Habits of Highly Effective People, 1989, the all-time best selling book on management, marked an inflection point in leadership theory.

Three rhetorical questions underscore how transformational leadership principles might be applied in the private sector:

- Why didn't railroads ever become airlines?
- Why didn't Sears become Amazon?
- Why didn't General Electric become either Microsoft or Apple?

Simply put, these once dominant players in the American economy essentially forgot what their core identity and mission, which inevitably led to a failure of imagination. It is thus a hallmark of a transformational leader to have vision and the means to articulate that vision to win over and mobilize willing followers.

7.1 The Great Solo Transformer vs. Subtle Team-Lead Transformation

There are no shortages of examples of transformational leaders in the corporate world going back to the likes of Thomas Edison, Henry Ford and Charles Westinghouse; and the more contemporary Bill Gates, Steve Jobs, Jeff Bezos and Elon Musk. The historical narrative is also replete with such transformational figures exemplified by Siddhartha Gautama, Kongfuze (Confucius), Alexander the Great, the monotheist prophets, the Qin emperor, Marco Polo, Cortez, the Enlightenment thinkers, and inventors from James Watt to Thomas Edison.

Each of these figures transformed their respective ages commonly referred to in the West as the "Age of Faith", "Age of Discovery", "Age of Invention" and now "Information Age") producing entirely new paradigms. However, there are less visible teams who collectively and often incrementally move society towards transformation. One cannot name, for example, the inventor of the atomic bomb, television, integrated circuit, or internet. These were team endeavors with individual orchestrators such as Robert Oppenheimer, in the case of the Manhattan Project, but otherwise no "father of" or "mother of" figure. It is an interesting debate that extends beyond the scope of this piece to gauge whether singular figures are still potent in relation to the team orchestrator, despite the popular perception of dominant world leaders such as Joseph Biden, Vladimir Putin, and Xi Jinping.

Organizational and societal transformation involves paradigm shift, but in practice may often be better described as quantum accretion and diffusion from many indeterminate sources that lead to a tipping point. This concept of incremental development, technological and societal, leading to transformation is the underlying principle behind empiricism and a core value within the philosophy of science. Thus empirical principles associated might be applied to transformational leadership theory (Eisenbeiss, Van Knippenberg & Boerner, 2008). This is the first contribution to possible emergent understandings of leadership theory generally.

7.2 The Outsider as Transformational Leader

Discussion of transformational leadership would not be complete without observing how many leaders emerge from outside of the dominant cultures that they come to transform. Alexander the Great was not Greek but Macedonian. The Mongol and the Ching emperors weren't Chinese, but Mongolian and Manchurian respectively. Napoleon was a Corsican who spoke Italian as a child. Hitler was Austrian, not German. Stalin was Georgian and not Russian. Mao Zedong was from Hunan province, an impoverished backwater region with its own dialect unintelligible to the larger population centers of East China. All were adjacent to their respective core cultures they would come to dominate, but they were not of those people. In a sense because they weren't in the picture, they could see the picture. The tale of Alexander the Great and the Gordian Knot provides a useful insight about the unique perspective that comes from the outsider leader.

Figure 2. Rendering of Alexander the Great Cutting the Gordian Knot

For those unfamiliar with this particular apocryphal story, it conforms to the "person of destiny" narrative that attends and supports many "great man" stories from classical times. As legend had it, Young Alexander was told of an ox cart tied to a post at the palace of Phrygia, then a province of the Persian Empire, by an intricate knot. It was prophesized that whomever untied the knot would rule all of Asia. Upon arriving, at the palace he attempted to untie the knot without success. He then drew his sword and sliced the knot open, freeing the cart and thus confirming his claim to Asia as legitimate in the eyes of his followers. The story functions as supporting "thinking outside the box" metaphor, which is strongly associated with organizational and social transformation (Lord, and Emrich, 2000).

An important expansion associated with Alexander the Great, but an Edison, Einstein, Henry Ford, Bill Gates, Steve Jobs, Elon Musk etc. and any number of figures who transformed their societies from revolutionaries to any number of virtually anonymous NGO and UN agency heads (Kirkman, et al, 2009). On the other hand, transformational leadership is a near polar opposite of those who associate good management is good leadership. Thus transformational leadership, while expanding how leadership is conceived much like situational leadership theory, is ironically also narrowed as a subset within leadership studies generally.

Another element of transformational leadership that can't be ignored is that organizational and societal transformation can fail. As this author commented to a major reform figure at the American University in Cairo, who supported the overthrow of Egypt's Hosni Mubarak in 2011, "This revolution will break your heart." Government overthrow ending in failure or ineffectual change is more the rule than exception with long-fixed cultural traits ultimately reasserting and supplanting revolutionary agendas.

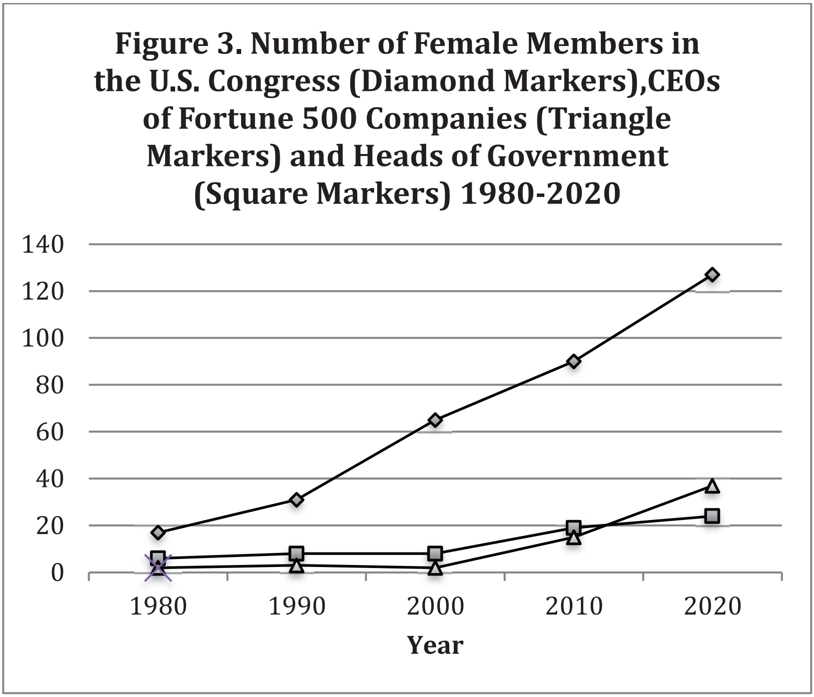
8.0 Possible New Directions in Leadership Theory: Culture, Feminized Leadership, the Institutional/Transformational Dialectic, and AI

Leadership is a complex culturally conditioned mélange with each refining theory adding significant nuances to the mix. The still persistent "great man" view is now understood as highly situational, aligned with cultural values and dependent on the mobilization of willing followers with lasting effects often dubious at best (Marturano, & Gosling, Eds., 2007). Securing willing followers by various persuasive techniques is the one constant with refinements such as "Theory Y", transactional, servant leadership and leader member exchange theories consistently focused on the expectations of the perceptions of the followers themselves (Northouse, 2019). Then there is the question of power particularly among charismatic transformational leaders (Yuki, 1999). The three dimensions of power (military/hierarchical and coercive), economic (incentives and disincentives as with subsidies and taxes) and cultural (promoting preferred values and social relationships) are significant drivers often under-appreciated elements within leadership theory generally.

Understanding the power of culture is an important and underappreciated key to determining how transformation takes place. For example, one can argue that the Soviet experiment failed because the other side had Mickey Mouse, and they didn't. For all of its power as a political-economic theory Marxism was culturally impoverished. "Boy-Meets-Tractor" cinema never caught on as a compelling popular entertainment.

Much of this cultural incorporation of the "marketplace of ideas" trope goes back to the linking of Adam Smith's invisible hand metaphor to social discourse and ultimately in trusting in the reasoning and creative powers of an informed citizenry. Little did the American founders realize the transformational potency of explicitly incorporating the social contract into a blueprint for government manifested in the Constitution. Historically the only significant transformations of culture have come from religious movements and with later scientific, technological revolutions such as the Gutenberg printing press which helped to the singular event of the Enlightenment consolidated through the rise of mass schooling in general and mass higher education in particular (Baker, 2014). This is despite the bloody legacies of religious wars, and the military technologies. More often than not transformational drivers would more effectively use soft power to achieve success (Kearn, 2011). In other words, transformation most often occurs with the consent of the followers (or "the market" as economists would phrase it) and only when either the old order is seen as fatally corrupted with an alternative viewed as demonstrably more efficacious (Haslam, Reicher, & Platow, 2010). Once again the leader-follower dynamic, reframed as a leader-constituent relationship, extends the social contract applied beyond the realm of the formal institutions of government to the corporate sector, religious organizations, and various social movements, technological advances and other drivers of social transformation (Masciulli, & Knight, 2009). In each instance social transformation is manifested either in the form of military power, realized through technological and organizational innovation driven by ideology or religious fervor (Mann, 2006), economic power as with the ongoing evolution of capitalism into globalized neoliberalism (Conway, & Heynen, 2006), and cultural power as manifested in popular mass media with contravening tribalizing influences often spread via social media.

It seems apparent that leadership in its broadest sense has become increasingly feminized in the sense that team building and collaboration and emphasizing common purpose are regarded as feminine strengths in relationship building and maintenance. Feminized leadership carries the signature traits of servant leadership in its empathetic aspects, and emphasis on working with followers in supporting the development of their potentials over asserting authority, subjugation and command. Feminized leadership has gained broad currency with women gaining increased access to power in the nonprofit, private and public spheres. This nascent but growing influence of literal feminized leadership is reflected in part, through the historical data depicted in figure 3 below:



Sources: "History of Women in Congress" Rutgers, Center for American Women and Politics (2020). "List of women CEOs of Fortune 500 companies" Wikipedia (2020) and "Historical List of Women CEOs of the Fortune Lists: 1972–2019" Catalyst (2020). "List of elected and appointed female heads of state and government" Wikipedia (2020)

Note that the figure above presents raw numbers and not standardized units and are thus not comparable to each other on that basis. There are 535 members in the United States Congress, obviously 500 Fortune 500 companies and 190-odd sovereign nations. The trends here are the focus. While all are rising female representation falls short of even 25 percent within each group.

It seems intuitively likely that female representation at the top level of nonprofit organizations would be significantly higher. This hypothesis was tested against a list compiled by Topnonprofits.com, 2020, entitled "Top 100 Nonprofits on the Web. This list was an eclectic mix of United Nations organs (specifically UNICEF and UNHCR), large religious charities, philanthropic arts foundations, museums and even zoos. A review of each organization's' homepage leadership links ("leadership" defined as being the top executive board member) showed 27.5 of 99 organizations within this list had a female head.3 Thus, while the proportion of female leadership within the nonprofit/NGO communities is somewhat higher than found in the private and government sectors, there is clearly room for growth for female representation. No historical data is available to track any trends or non-trends within the nonprofit/NGO spheres there is evidence supporting a continuing rise of feminized leadership overall in this sphere as in the other spheres. This would be congruent with the larger trends already described with leadership continuing to emphasize leader-follower relationships, team development and the values of service that tend to be associated with women.

To be clear, feminized leadership is distinct from feminist leadership with a significant difference being an emphasis on a broader holistic all encompassing perspective rather than promoting any explicitly feminist agenda. This attitude is expressed in these quotes from Afkhami, Eisenberg and Vaziri (2001).

> [G]ood leadership – leadership that serves both women and men, poor and rich, and the powerless and powerful – is inclusive, participatory and horizontal . . . leadership should be about capitalizing on the ideas and skills of as many individuals as possible . . . A good leader is also conscious of

[3] Bill and Melinda Gates are co-chairs of the Bill and Melinda Gates Foundation and the Human Rights Campaign has no designated board chair consistent with their social equality agenda hence a total N of 99 of the 100 nonprofit organizations used in this analysis and the .5 value of female representation.

> the processes – the means by which she carries out her objectives – are as important as the objectives themselves.

This perspective is now widely accepted among contemporary leadership theorists. It is also quite congruent with the exemplar "character counts" and consensus-builder models, now long-standing attributes of ideal leadership with the anomaly of the Trump administration a notable exception. There are numerous models of competent female leadership on national and international stages often installed as reform figures that have earned increasingly broad confidence among constituents. It should also be emphasized that feminized leadership need not require that the leader be a female. Rather, feminized leadership simply prioritizes servant leadership principles such as empathy, collaboration, and developmental support at individual and team levels. In this regard, feminized leadership as related to servant leadership might be a distinction without a difference.

Under more pure-type feminist orthodoxy, there is skepticism over servant leadership as simply masking hierarchical relationships quite literally in the very term "servant". Eicher-Catt, (2005) doesn't accept the notion that servant leadership can be reconciled as defining a genderless and optimistic species of leadership:

> In sum, rather than neutralizing any gender bias, the apposition of "servant" and "leadership" instantiates a sign of discourse promoting an either/or logic that requires a perceived gendered choice. At any given time, a leader must privilege one conceptual orientation over the other since either creates different rules of the game pertaining to leadership. Privileging one necessarily inhibits the other . . .

Thus feminized leadership as a subspecies of servant leadership is seen as a myth by pure-type feminists. They see it as perpetuating a system of gendered hierarchal domination. This perceived contradiction between feminism and feminized leadership as expressed in servant leadership, and pure-type feminism is one likely to play out over the next few years.

There is another longer-term and more transcendent and persistent dynamic that may gain greater attention in light of the interest in transformational leadership is how it is the antithesis of authoritative/institutional leadership.

The fundamental feature of authoritative/institutional leadership is that it tends to reside in a hierarchical structure almost always determined by an established system of merit. Authoritative/Institutional leadership is, by its nature conservative in that the authoritative/institutional leader is charged with perpetuating established organizational values making such leadership the polar opposite of transformational leadership. Institutional leadership thus can act in the role of staving off transformational change, which can include maintaining a system of elite patriarchy (Bahlieda, 2015). Conversely it can also act as a firewall against irrational extremism that can manifest as mob rule and reigns of terror such as seen in such episodes as the French, Bolshevik and Maoist Cultural Revolutions. So transformational leadership can be the antithesis of authoritative/institutional leadership, but it must be conceded that transformation can be just as easily be retrograde as progressive as observed, in the former case by the civil rights, labor and women's movements; and in the latter case, by reactionary episodes ranging from the rise of ISIS to ultra-nationalism.

In the case of institutional organizations in all spheres (government, corporate, religious and non-profit), there is a long-standing dialectical tension between the outsider/transformer and the insider/institutionalist. One example at the national level is seen in military coups where those who seek overthrow are almost never the generals, who are beneficiaries of the prevailing governing system, but the colonels who know of the organizational corruption and often move in the spirit of government reform.

This may be the next iteration of leadership theory, at least in an administrative context, best described as exploring the possible syntheses between transformational and institutional leadership. The former type of leadership can bring about true innovation and social advancement, while in the latter type functions to maintain social confidence in the established modes of governance from its formal institutions, to the corporate, religious and cultural.

At the level of the formal levels of government, this tension is revealed in the relationship between elected officials who often present themselves as reformer/transformers setting themselves against the career government professionals ("bureaucrats") steeped in managing a structure and process they are bound to maintain the so-called "deep state".

Invoking the Causal-Layered analysis at the world-view and mythic levels so ably developed by Inayatullah (1998), there are innumerable popular narratives of transformational figures arising within institutional settings where they suffer for their “heresies” as with, for instance, Galileo, Martin Luther and Colonel Billy Mitchel[4] to name just three.

As mentioned previously, some outsider transformers seek to restore a mythical golden age, which, for instance, can plausibly be applied to any number of settler cultures that reproduce the customs and worldviews of their former homelands, the United States notwithstanding. It is also a feature of right-wing fascist movements, which quite literally invoke the symbolic weapon, the fascia, an axe, with its handle bound by reinforcing rods used by the ancient Roman praetorian guards. The symbolic value comes from its augmented handle being unbreakable and thus can be swung with annihilating force. The implication is that the binding of self to state makes one part of something greater, more powerful and more lasting, ie. a “thousand-year Reich”.

In this vein, there is the popular collective unconscious foundation narrative in America that has tended to skim over the non-English settlement of the nation, and even favoring the Puritans over the preceding Anglo Jamestown colonists (in it for the money) Puritans seeking to found a “New Jerusalem”. This sanctification-of-settlement narrative has created an interesting tension with that group of revolutionary and post-revolutionary “founding fathers” in America who were, most heavily influenced by Enlightenment thinkers and pointedly sought to keep theocratic influences out of the government. Religious practices were to be tolerated, but only tolerated and not embraced and certainly not serve as a governing template in this new order. Yet “American exceptionalism” has always carried a religious element (Ceaser, 2012). This has created yet another dialectical tension with the contradiction between leadership being a matter of human will and agency and belief in a transcendent divine plan beyond human comprehension much less control. This millennialist component of the American narrative has endowed it with an evangelizing attitude being the first nation with a written constitution that effectively limited government and limited overt religious influence, though, at this juncture the idea of a declared atheist rising to national political office seems highly unlikely. The same is certainly true of any non-Muslim leading any Muslim-majority country.

[4] American Colonel Billy Mitchel is the most obscure figure of the three mentioned, but he proved that air bombardment could sink battleships and was court martialed and convicted of insubordination by a military establishment that favored prioritizing battleship construction over developing air power. The Wikipedia account of his career is a template for any number of insiders who broke with orthodoxy and paid a price. https://en.wikipedia.org/wiki/Billy_Mitchell

This speaks to the cultural limits of the outsider leader. The aforementioned historical "great men" leaders, while outside their respective core cultures, were proximate to and aligned with most of their primary culture's prevailing norms. One can see this in other contexts where cultural competency is required to inspire confidence in a given leader from the corporate to the, arts, military, and professional sports worlds (Mishra and Mishra, 2013). Again, this speaks to the insider transformer who can be highly effective precisely because they would know how the respective systems that they reside in function. Moreover they are likely to have the trust of the other stakeholders to overcome initial resistance. Dysfunctional transformations, as applied to socio-political movements, are largely the product of radical or reactionary leaders from outside of the prevailing institutions and systems such as with the Bolshevik, fascist/ultranationalist, and Maoist-style revolutions and most recently with the manifest incompetency of the Trump administration. In the latter instance Lewis, 2018 provides a chronicle of the utter lack of governing experience and resulting ineptitude. This is a "transformation" of an entropic sort evidenced most prominently by a botched pandemic response and disengagement from the global community (Papadimos, et al., 2020).

There is also the very real prospect of AI leadership, a variant of authoritative leadership manifested in the form of self-learning algorithms. In a sense this already the case given how dependent smart phone and other digital device users are on their applications ranging from geo navigation to recommendations from Alexa, Google Assistant and Siri (Dong, et al, 2016). While it might be claimed that AI lacks initiative which might be considered a critical leadership trait, aircraft navigation systems often assert initiative, even to the point of overriding pilot control, so there's that precedent along with any number of warning sensors in vehicles with lane guidance and braking overrides. AI leadership may already be ubiquitous and hiding in plain sight; seemingly a contradiction of the Great Man theory that assumes a tangible body and personality. Note that "personality" comes from the ancient Greek word, "persona"; literally "mask", and in this age of mediated images it is still powerful symbolically which is why charismatic leaders have always relied on idealizing their images. Examples include the smoothing the pockmarked face of Stalin, and covering up the tumor on Kim Il Sung's neck, or augmenting their images with fetish-like accessories as with Mao Zedong's plain cloth jacket and the oversized red tie of Donald Trump. Trump, like many demagogic leaders, also effectively made his image and messages tangible through his live-in-person rallies, and widely followed tweets, as high-tech version of Mao's little red book of sayings, which melded both as both symbol and the thing in itself, the very definition of a cult of personality. It might thus sees likely that AI as leader may first have to assume a charismatic corporal form to be formally deemed as such among the public at-large, though not necessarily so. This is because AI can also be considered the contemporary equivalent of the household talisman shrines that date back to the classical worlds of both East and West, and still common worldwide. Those shrines have been supplanted by television, literally arranged as such in most homes.

9.0 Conclusion

The evolution of leadership theories as outlined here continues to be an ongoing process significantly shaped by culture, historical events and technological mastery. The discontinuous nature of this process defies prediction, but does allow for some tentative forecasting as in the overall diffusion of leadership functions.

One increasingly common variant is “adhocracy”, which is focused on enterprises where those with specialized skills are assembled for a given project by an administrative core, but not permanently incorporated into the organization (Mintzberg, 1985; Dolan, 2010). This flexible organizational type has been around for a long time most commonly in the construction, and entertainment industries where, in the case of a construction project, site prep, framers, electricians, plumbers, dry wall hangers, finishers etc., may be hired for a given job and then let go when completed. Then there are the myriad other participants such as the architects, permitting process, and project financing on the front-end and the furnishing, landscaping and maintenance of the spaces on the back-end. None of these elements are permanently involved in the project with the possible exceptions of the landscaping and maintenance enterprises that are also under contract with renewals presumably based upon performance and price (Klinger, and Susong, eds. 2006). So too in the entertainment industry across the board are essentially adhocracies with an administrative core assembling screen writers, directors, actors, cinematographers, sound technicians, and so on, with the studio administrative core cadres of financers, producers, legal staff etc. Adhocratic organizations have continued to proliferate with myriad variations creating new sets of relationships between the administrative cores and contracted workers heralding what it now commonly referred to as the “gig economy”. These contracted workers most prominently seen in the Uber and Lyft ride sharing business model who are technically their own bosses and are often driving for both companies should they choose. Amazon, EBay and Facebook use a variation of this model in providing a platform for an army of sellers; in a sense a highly refined flea market. In these models leadership, while attributed to the founders, they often have little involvement in the day-to-day operations.

So the futures of leadership may follow the principle of ephemeralization, a concept first put forth by Buckminster Fuller (1938), positing that technological innovation follows a consistent trajectory of "more and more with less and less until eventually you can do everything with nothing,". The movement of information from clay tablets to paper to magnetic tape to digitized clouds is a perfect example of this principle. Likewise leadership might be similarly ephemeralized and almost certainly further diffused following a networked model. Thus the concept of leadership itself may radically transform with the normative concept of a tangible leader rendered irrelevant. Nothing better exemplifies the ephemeralized leader than the phenomenon of the Q Anon movement led by a figure claiming to be a government insider (government clearance "Q") who is literally anonymous. No follower has seen "Q anon" yet are zealous believers. Q Anon is literally manifested only in a digital form. Here is the ultimate leader moving followers "doing everything with nothing".

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TOWARDS A LEADERSHIP METAMODEL: EXPLORING OVER 2000 YEARS OF LEADERSHIP THEORY EVOLUTION

CHRISTIAN COUTURIER & THOMAS MENGEL

Abstract

An earlier exploratory computer aided content analysis of seminal writings from 387 BCE to the 21st Century uncovered the most significant concepts consistently discussed in leadership (Couturier 2015). As a result, we identified about one hundred most representative capabilities of leadership. These leadership capabilities have informed a defined conceptual framework that can be used in future empirical research as well as in leadership development. The findings constitute an initial grounded integrated leadership theory represented through a metamodel. In this model a person delivers a leadership service; they draw upon a leadership process which is manifested through a leadership archetype and which entails relevant leadership capabilities.

The leadership process itself starts from a need. Conditions (knowledge, decision and action) are then set to deliver a leadership role from which power (authority and influence) emerges, from which we learn (feedback), and which we continue to deliver until that need is fulfilled (partially or completely).

Finally, inputs to the leadership process were specified and possible relationships between most leadership theories and approaches were described in an emerging metatheory of leadership.

Keywords

Leadership; leadership capabilities; leadership abilities; leadership capacity; content analysis; computer aided text analysis; leadership metamodel (metatheory)

1.0 Introduction

With such an important body of knowledge about leadership having been developed over such a long period of time, it is nearly impossible for any one person to grasp all this information. While a unified theory and agreed upon definition of leadership does not yet exist (Northouse 2019), researchers continue to believe that the field of leadership is to evolve toward a more holistic, integrated or unified view of leadership (Avolio et al. 2009; Redeker et al. 2014). A more comprehensive and integrated framework would make for increased and better reflections by current and future leaders and would ultimately improve leadership development (Gill 2011; Avolio, Walumbwa and Weber 2009).

In this chapter, we aim at contributing to the development of an integrated, comprehensive framework by asking the following three central questions:

1. Which common set of characteristics (concepts) might leadership theories share?
2. How might the conceptualization of the characteristics describe leadership capabilities as core constructs of leadership education and development?
3. How might the described concepts and constructs inform an emerging metatheory of leadership?

To answer these questions, we used a multidisciplinary approach consisting of an exploratory iterative-hermeneutic content analysis and architecture definition (e.g., modeling). Our approach was qualitative and interpretative, and it still remains to be externally validated.

2.0 Definition of the problem

Leadership is a multidisciplinary affair which deserves the attention of interdisciplinary studies. However, social sciences mostly guided our work since leadership is primarily about people interacting with each other in a social context (Northouse 2019; Alvesson 2019; Carroll et al. 2018).

2.1 Framing our approach

Since Taylor (1919) processes and process-oriented models have increasingly been at the focus of business theory and practice (Christensen 1997; Parker and Benson 1988; McHugh, Merli and Wheeler 1995). Similarly, leadership has increasingly been framed as process-oriented

(Wren, Hicks and Price 2004; Northouse 2019). A process entails having a series of actions that are directed toward a common aim or need. Further, leadership as process can be thought of as a journey that occurs in a context, and the completion of which is as much an art as a science (Grint 2001). Finally, given the high number of higher education institutions focusing on leadership (International Leadership Association 2020) and of businesses and professional development organizations focusing on leadership development (for example, Google returned 854 million results when searching for "leadership development program") it is safe to assume that leadership can be taught and leaders can be developed (Parks 2005; Avolio, Walumbwa and Weber 2009).

2.2 Leadership theory evolution

The study of Leadership takes root in the oldest written manifests by humankind from Antiquity to the late 1900s (Figure 1). Over time, leadership studies have moved to a more scientific approach. Studying traits, behaviors, and decision making of leaders, as well as gaining understanding of transactional and transformational were among the many types of studies conducted in the 20th century.

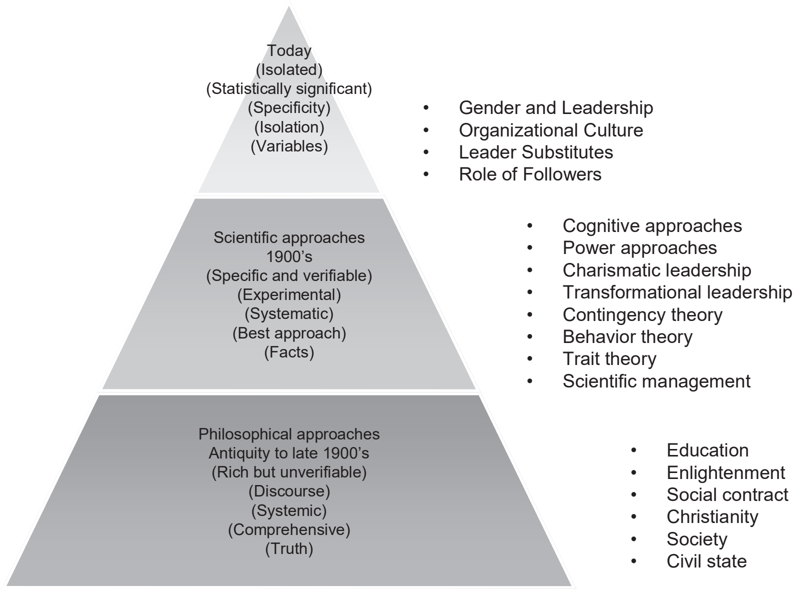


Figure 1. Leadership theory evolution.

More recent approaches continue those scientific approaches. Refined experiments with more elaborate methodologies and very specific variables are aimed at better identifying statistically relevant factors and at better understanding the leadership phenomenon. The role of gender, the significance of culture, or the role of the followers are some examples of the current approaches to studying leadership.

Using Wren's classification approach in Goethals and Sorenson (2007), the complexities and the breadth of leadership studies can be captured to identify at least 58 additional theories and approaches (Figure 2). This table of compounds and groupings illustrates many things:

- Clusters of theories and approaches, based on their emphasis:
    - (I) Contextual: emphasizes specific realities leaders must contend with such as Globalization (e.g., culture, diversity and distance).
    - (II) Individual: those theories and approaches that are more focused on the person leading:
        - Traits: emphasizes personality characteristics of the person.
        - Behavior: emphasizes leader's capabilities through styles.
        - Cognitive: emphasizes psychodynamics through motives; personality; meaning; self and other psychological dimensions.
    - (III) Process: leadership is more focused on a series of actions leading to an outcome:
        - Contingency: emphasizes situational approaches in the process of leading others
        - Transactional: emphasizes exchanges between actors in the process of leading.
    - (IV) Normative: emphasizes approaches that affect beliefs through morals and ethics. It is linked more closely to "II – Individual" approaches and theories than it is to "III – Process" or "I – Contextual" ones. This explains why, in Figure 2, Authentic Leadership is closely located in the table to Behavior Theory and Style Theory (see "II – Individual, B. Behavior".
- The Table gives a general sense of proximity or distance between different theories and approaches. For example, Trait Theory (see A. Trait) and Leadership Development (see C. Cognitive) approaches are both person-based (see II – Individual), yet they are in opposition to each other. One, Trait Theory, describes behavioral traits that are said to be largely fixed. The other, Leadership Development Theory, proposes how to develop skills in order to ensure that those behaviors

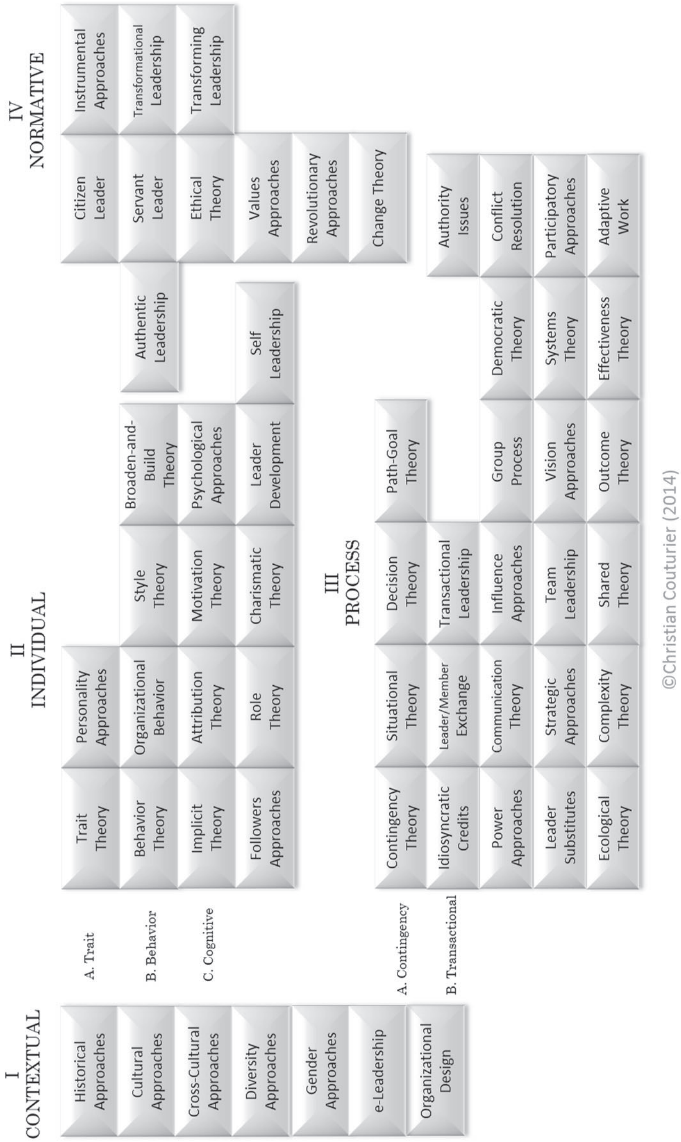


Figure 2. Table of compounds representative of leadership theories and approaches.

are possible for any leader. That explains why Leadership Development Theory is located closer to Cognitive approaches as well as closer to both Process (see III – Process) and Normative (see IV – Normative).

Mostly, these theories and approaches are complementary in practice much like a theory about an individual leader (i.e., Trait Theory) may not be completely separated from that individual leader in a given context (i.e., Situational Theory) or, as expressed in Wofford, Goodwin, and Whittington (1998), the possibility that both transformational and transactional cognitive structures and processes exist in the same leader's memory structure.

Given the existing diversity of and differences between leadership theories, researchers, believe that the field of leadership is to evolve toward a more holistic, integrated or unified view of leadership (Avolio et al. 2009; Redeker et al. 2014).

The central questions of our earlier research therefore became:

1. Do leadership theories share a common set of characteristics?
2. How could those characteristics be integrated?

2.3 Methodological approach: Content Analysis of an Existing Body of Knowledge

We first settled on a core sample of text that would anchor our exploratory content analysis by defining an initial construct through a critical synthesis of those texts (Neuendorf 2001; Krippendorff 2004). We then made use of a computer aided text analysis tool to help validate some of our initial inferences (Couturier 2015).

The words that were further analyzed are contained within The International Library of Leadership by Wren, Hicks and Price (2004). Over 1,481 pages of seminal writings, organized into 28 different approaches, contained in 84 distinct documents by 75 distinct authors, the period covered by this body of work ranges from 387 BCE to 2003. In addition, we added two additional data sources in order to help compensate for later years (i.e., 2003 onwards). Two literature reviews (Avolio et al. 2009; Kilburg et al. 2011) assisted in determining the validity of the findings against a comprehensive and more recent set of leadership theories.

First, a summary of leadership concepts was inferred. The concepts were captured in a catalogue, reviewed, and described in detail by first answering the Who, What, When and Where of leadership. This has resulted in a somewhat systematic and grounded documentation of the themes to serve as a base of a computer aided text analysis.

3.0 Towards an integrated theoretical construct

Many definitions of leadership account for both authority and influence (Bass 1990). However, this is only an outcome of a very complex process. According to Wetherbe and Vitalari (1994), the characteristics of the inputs and outputs of a system is a key determinant of an open, adaptive and organic system. Modelling complex systems may form the basis for better designs of systems (human or computer) that help explain such a phenomenon as is the one of leadership.

3.1 The inputs that condition leadership

From the previous literature review a constant emerged out of authors' references to roles – the 3 roles in life that we all come to either occupy or be preoccupied with: Savior, Magistrate and Victim (Figure 3). These 3 roles can be argued to be part of the Jungian collective unconscious (Jung 2006). They are recognizable patterns, part of the collective inherited human experience, and something inherently understood.

Figure 3. Traditional philosophical perspectives on leadership roles.

Through the evolution of theories over time, we observed that a Savior role (including God, King, Tyrant and, Hero) was, in more modern times, more equated with being a Leader and that the Magistrate role became synonymous with Judge and that in turn, Victim (including the terms "the" People and Indifferent) became synonymous with Follower.

Further, throughout our inquiry we have come to understand that leadership is a function of our *selves* in relation to three conditions; first that we know, second that we decide and third that we act. We are inferring that the Victim or Follower within us needs to know why, the Magistrate or the Judge in us wants above all to decide, and that the Savior or Leader present in all of us wants desperately (has a strong propensity) to act. We further believe that it is only when all three are equally conscientiously present within the mind that a person may come to balance their leadership approach in life and to live it to their full potential.

As per Plato, "Good philosophers will be distinguished by quickness of understanding, good memory, courage, and generosity" (Plato, trans. 1941, 67), we come to know (by understanding and through memory), we decide to engage for the betterment of society (with generosity), and then we act (with courage). Aristotle reminded us that we play different roles and that together we form a whole which is greater than the sum of its parts: "Supreme power ought to be lodged with many... each person brings in his share of virtue and wisdom..." (Aristotle, trans. 1900, 17). As we come to play different roles, it takes wisdom and reasonableness (knowledge), choice and courage (to decide) as well as tenacity (in action) (Hollander 1974; Barber 1984).

Some more recent studies in leadership, focusing on the cognitive processes, support these philosophical inferences. Wofford and Goodwin's (1990) "Model for Feedback and Decision Choice" accounts for an "information source" (cognitive process) as a prerequisite for a "decision/choice" to be made (leadership role) (604). Building on this preliminary evidence, we state that people choose which part they want to play at different times – Leader, Judge and, Follower; they base their choice on three essential conditions of leadership – Action, Decision and, Knowledge.

As opposed to the philosophic approach to leadership from which we have inferred the initial conditions (knowledge, decision, action) in becoming a leader, the scientific approach has yielded much more specific and refined information (attributes, characteristics, etc.) about the conceptualization of leadership roles and how they can be specifically defined. In the next section, we will bring the underlying set of concepts found in the scientific approach into a cohesive framework together with the philosophic concepts.

3.2 The leadership process

Several studies have described some form of a leadership process (Yaakov 1994; Mimbs 2002; Slater 2005; Pierce and Newstrom 2006, Mavrinac 2005; Den Hartog and Belschak 2012). However, authors use the term "process" generically and without technical modelling.

To offer precise language and clear graphical representation, we use a process flowchart (Figure 4; IBM 1969) for the leadership process (Figure 5); we position our arguments outside the "black box" (i.e., the actual leadership "role" represented by a square box in Figure 5) and focus more on the "inputs" to that process. By acknowledging that we come to play a different leadership role in many different situations based on some key entrants (conditions) to the process, we may be in a better position to understand our past and better plan our future desired outcomes (authority and influence) of leadership.

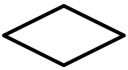
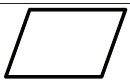
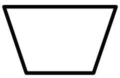
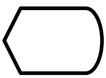
	Start-End Symbol: The terminator symbol marks the starting or ending point of the system.
	Process Symbol: A box can represent a single step ("add two cups of flour"), or an entire sub-process ("make bread") within a larger process.
	Decision Symbol: A decision or branching point. Lines representing different decisions emerge from different points of the diamond.
	Input/Output Symbol: Represents material or information entering or leaving the system
	Preparation Symbol: Represents a set-up to another step in the process.
	Manual Loop Symbol: Indicates a sequence of commands that will continue to repeat until stopped manually.
	Display Symbol: Indicates a step that displays information.

Figure 4. Symbols for describing a process.

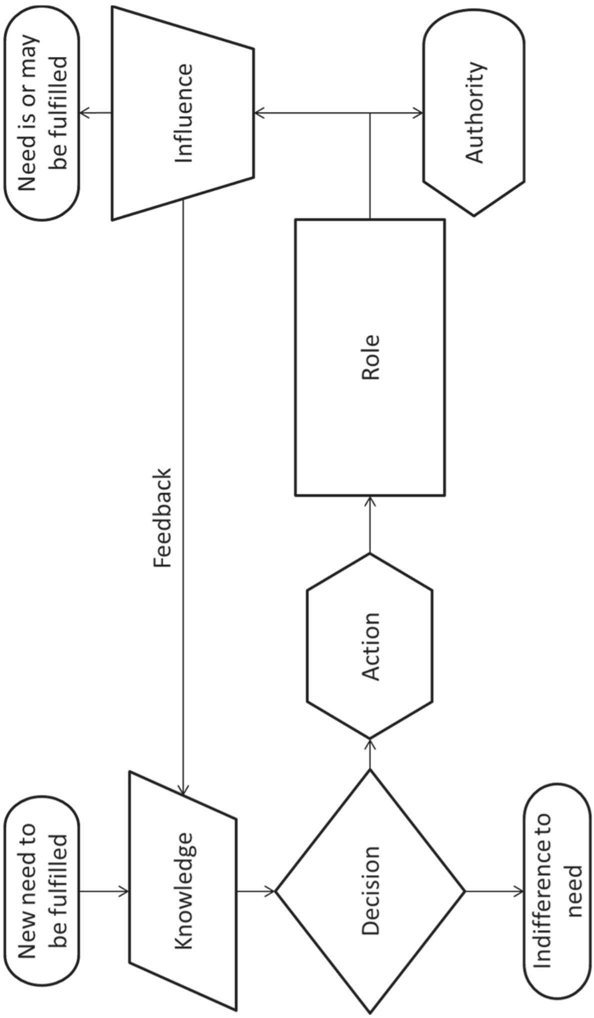


Figure 5. The process of leadership.

The process logic that links each of the basic roles (Figure 3) to the conditions of leadership is described below and captured under the caption of *need*, *knowledge*, *decision*, *action*, *role* and, *authority, influence and feedback*.

3.2.1 Need

We start from recognizing that a "need", perceived or real, initiates the process of leading others toward a concrete attainment (For example, need for personal safety or a need for greater security in a community). Because we choose to live in association, a need is always shared (to various degrees).

3.2.2 Knowledge

In Figure 5, an Input/Output symbol contains the word knowledge to indicate that what we know about the world and about us precedes other steps in the leadership process.

3.2.3 Decision, Indifference

A decision is and must be informed by what we need and what we know (Vroom 1973; Wofford and Goodwin 1990). Decisions may affect us in many ways such as forming our culture, values and beliefs and they ultimately affect our motives for actions thereafter. In Figure 5, what follows knowledge is a decision to act or not to act (indifference).

3.2.4 Action

Our action is required to see constructive results. Thus, in Figure 5, the leadership process is fed by three key conditions, or inputs, that take the general form of knowledge, decision and action. The outputs of the leadership process will then serve to inform future knowledge and in turn decisions and actions.

3.2.5 Role

Once we decide to lead (or to be a leader), we effectively choose a (leadership) role, or more likely many different roles. A role is shaped by many things including our beliefs, values, culture, traits and behaviors. In Figure 5, once a role is played, at any given time, authority is displayed, and a continuous loop of influence is exercised until the originating need has been filled or partially filled. Filling the initial need, in full or partially, would be considered the measure of impact from the leadership process.

3.2.6 Authority, Influence and Feedback

Feedback can be obtained in many ways. Whether it is through success or failure (i.e., complete or partial fulfilment of need), we have the opportunity to learn something that will help inform future decisions and actions (Hume 1748/1882; Arendt 1951; Rost 1991; Heifetz 1994). In Figure 5, this takes the form of an arrow, perhaps best described as reflection and experience, from the manual continuous loop of influence to the input of knowledge. In summary, at the highest level of abstraction, the process of leadership takes the form of Figure 6.

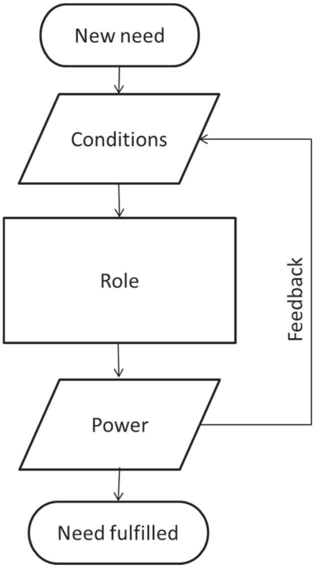


Figure 6. The process of leadership (simplest form).

From a need, conditions (knowledge, decision and action) are set to deliver a leadership role from which power (authority and influence) emerges which we learn (feedback) from and continue to do so, until that need is fulfilled (partially or completely). The need is perceived by a person, in a given context, and eventually filled through a leadership process.

3.3 The leadership metamodel

From a review of the literature, we have identified over 100 important concepts relevant for the ecosystem of leadership. In explicating leadership as a process (Figure 5) only a few concepts have been captured to describe the steps of leadership. The use of capability modelling further contributes to the development of a leadership metamodel.

3.3.1 Capabilities

We define capability as the set of knowledge, skills, and attitudes a person needs to possess in order to do something effectively. Leadership capabilities in particular help achieve a specific purpose or outcome in the leadership value stream, and they can be grouped and organized in a hierarchy of levels and in the context of processes they enable and services they help deliver (Figure 7; Couturier 2015).

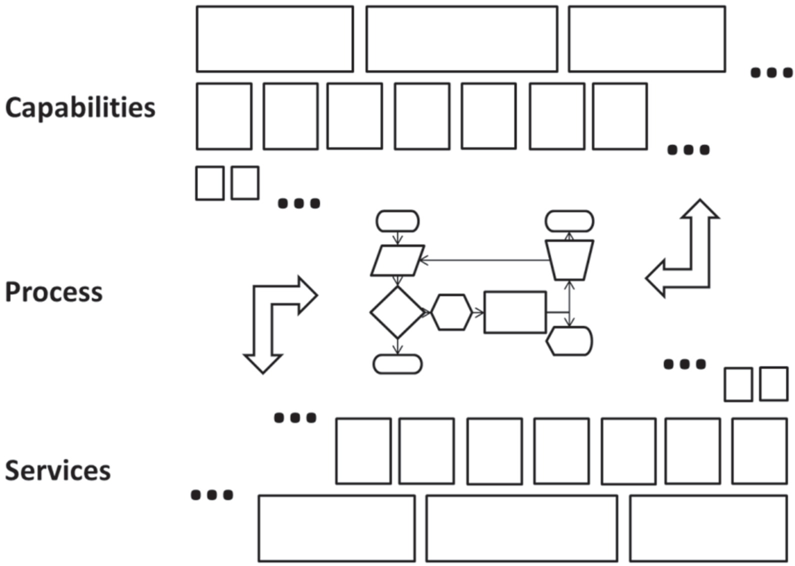


Figure 7. Leadership metamodel where a process enables a service through capabilities.

For the purposes of constructing the leadership metamodel, each concept identified in the literature review forms the basis upon which the leadership capabilities can be assembled and described. Further, capabilities can be functionally decomposed in 3 distinct levels: *leadership domain, capability group*, and *capability*. This grouping of capabilities was the result of grouping the theoretical concepts that were similar and then deciding on a

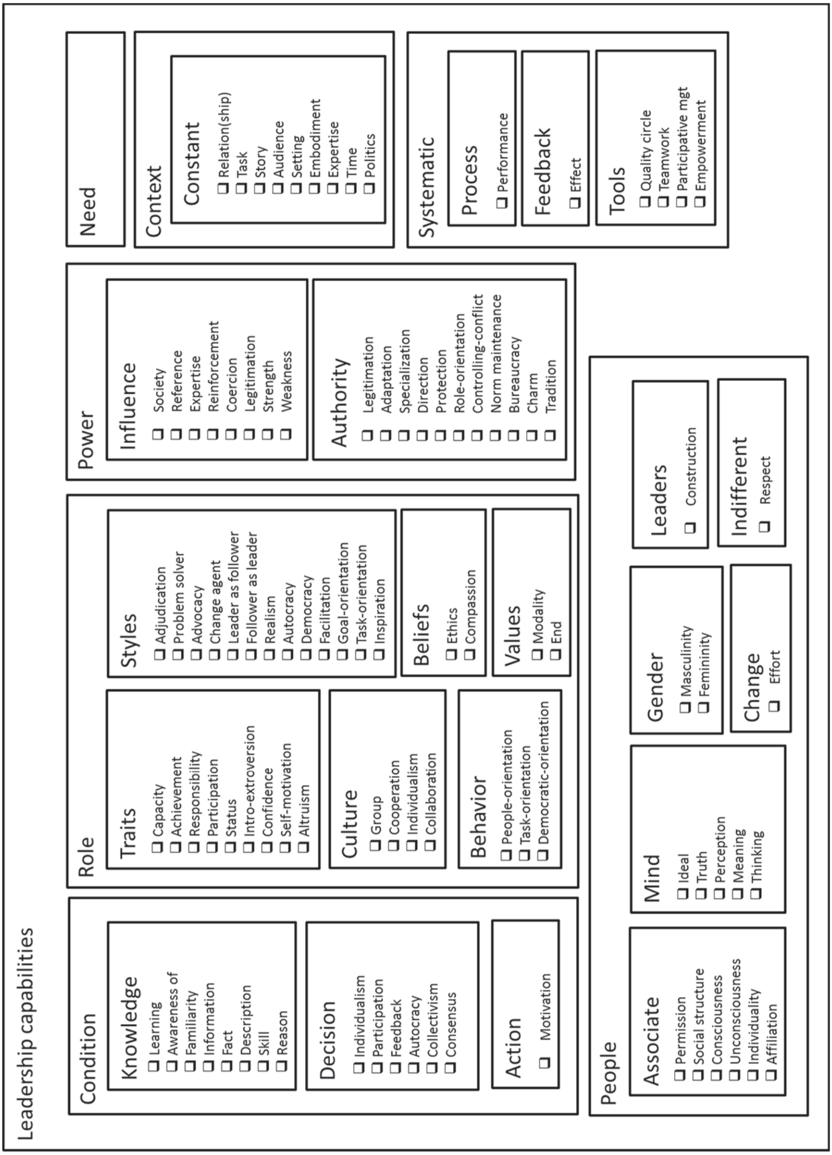


Figure 8. Leadership capabilities summary showing hierarchy.

logical hierarchy. When duplicate concepts existed, they were merged into a single capability.

There are several possible capability associations (or tuples) that can be traced back to the concepts in the literature review. In Figure 8, the respective capability relationship is represented by nestled rectangles. Each of these capabilities was either identified during the literature review or the content analysis. The same approach was used to build the data language for each of the capabilities listed in Figure 8 and documented in the catalog (Couturier 2015).

Figure 9 is an example of a snapshot that can be produced based of the content of the catalog. It contains the description of the capability along with a list of processes and theories that are linked to it.

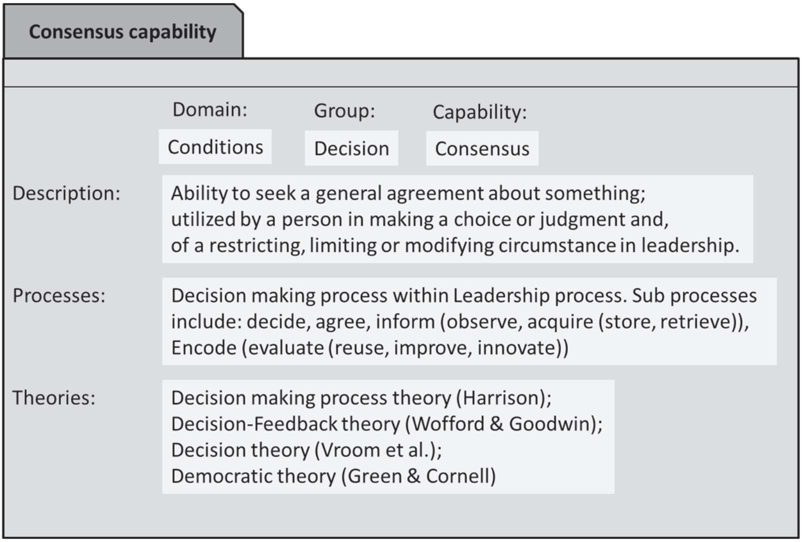


Figure 9. Consensus capability snapshot of related information.

3.3.2 Services

The last key element of the leadership metamodel in Figure 7 is *leadership services*. A service is an instantiation of capabilities assembled together through a process for a specific set of conditions (likely in the form of a purpose). For every different service, it is the same leadership process, drawing upon the same set of leadership capabilities.

Basic services types we all deliver day-to-day could be a job, a duty, a punishment, a favor or a helpful action. Leadership services could take the form of transformational leadership, transactional leadership, cognitive leadership, servant leadership and charismatic leadership.

While the *leadership process* and *leadership capabilities* were largely derived from the leadership concepts, as they were inferred from the leadership theories during the literature review and substantiated by specific detailed references to each concept, the *leadership services* notion will require further detailed research to fill some gaps.

3.4 Summary

In summary, we have described a leadership metamodel which is comprised of a leadership process that underscores the importance of leadership conditions, leadership role and outcomes. The model organizes the basic concepts of leadership, as found during a review of the literature, into capabilities which are assembled together, through a leadership process, based on leadership services as they can be imagined in the form of leadership archetypes. This metamodel and its content now forms the basis of a novel construct for leadership theories (i.e., theory of theories or metatheory) and practices which can be stated as follows:

> Situated in a particular context, a person delivers a leadership service. Leadership services require relevant leadership capabilities and draw upon a leadership process. Finally, leadership services are manifested through a leadership service archetype (Leader, Follower, Judge; see Figure 3).

4.0 Conclusion Benefits, Limitations, and further research

After stating the integrative theory problem, the complex phenomenon of leadership was first broken down by determining key concepts inferred from literature. It was then assembled again by constructing a grounded and integrated theory based on those key concepts.

Leadership theories and approaches most likely share a common set of characteristics. Furthermore, it is possible to assert that a probable leadership metamodel has emerged to demonstrate how those characteristics can be integrated.

These preliminary findings constitute an initial grounded theory. Figure 10 synthesizes and defines the metamodel's main components (i.e., capabilities, process, services relationship).

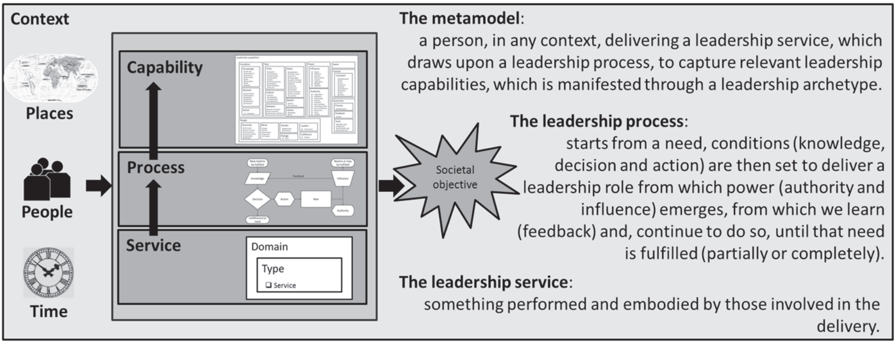


Figure 10. Leadership metamodel summary.

There are several benefits to the metamodel, its components, and to well defined leadership capabilities:

- Common vocabulary: A common language for "what" leadership does enables situation analysis of critical issues and streamline efforts to craft solutions to identified challenges.
- Visual map: The model provides a way to see what is common across leadership theories and approaches. It also provides visibility of relationships between important elements of leadership and can assist in identifying areas of improvement.
- Focus and starting point for leadership conversations: The model also enables to choose and zoom in on a specific area without losing sight of the context. It offers a collective view and enables conversations to more quickly identify areas that require more attention.
- Defined Inputs: The leadership process has been defined in more detail and with an innovative focus on the inputs to the process.

However, there also are some limitations of the research and its findings. First, the model presented will need more specific process development work and clearer links between each process and contributing capabilities. Second, this research needs to be further validated as follows:

- Validate the model in different leadership settings and assess its validity against what has been observed;
- Validate the use of the model in coaching leaders;
- Using iterative-hermeneutic content analysis of relevant (leadership) literature, refine the metamodel by continually identifying elements that belong but have not yet been identified and documented.

Third, although qualitative and quantitative methods were used to increase transparency and internal validity, our findings need external validation to substantiate, enhance, or correct these initial findings (Klenke 2008).

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Surviving the Great Recession of 2008: How One Investment Firm Overcame the Crisis that Would Define a Decade

Steven M. Walker

Abstract

This case tells how a leader of an investment firm used the tools of systems thinking, communication, relational leadership, and ethics to help survive the Great Recession of 2008. Due to the leader's systems thinking view of the economy, relational leadership style and open communication, several behavior themes emerged. Organizational policies were then developed to help institutionalize these behaviors, and which prepared the organization for a successful response to the oncoming catastrophe. Strategic management strategies, supportive relationships, ultimately guided and stabilized the organization throughout this economic crisis, effectively leading to future growth.

Keywords

Foresight Methodology, Leadership, Systems Thinking, Great Recession, Health Care

Author's note: while the leader whose story is presented here is an actual leader at an investment firm in the Pacific Northwest, his name and the name of his organization have been changed to protect his privacy. A pseudonym was chosen for the organizational leader and is used throughout this paper.

On September 29th, 2008, the Dow Jones Industrial Average dropped 774 points. At the time, this was the record for a single day point drop of the stock market in United States history. This was only the beginning. The months that followed created an economic collapse the United States hadn't seen since the Great Depression. With the economy in a tailspin, organizations around the country were required to face rapidly changing environments or be forced to dissipate and dissolve. Hundreds of organizations would fail. This case will examine one organization that survived. Specifically, this case examines a large investment firm in Portland OR, and the specific concepts used by the organization's President, to enable the development and implementation of organizational policies that would sustain the organization through the rapid changes brought on by the Great Recession of 2008.

David's Story

David was the co-founder of an investment firm in Portland, Oregon. David began his search for the venture capital that would eventually start his business in the spring of 2008 when the market was in its early stages of perturbation leading to the eventual collapse that September. Since David's work was in investment and venture capital, his perspectives of the events were unique.

Internal response to the crisis

David resided in a unique paradigm, and his ideas and perspectives on sustainability initiatives were holistic, seeing the interconnectedness between the realms of environment, economies, and societies:

> We think of sustainability as having to apply to both environment as well as community and we think of it in terms of economic sustainability. In that you can't actually have a sustainable society or project or sustainable industry or ecosystem without it being economically viable excess and impacting both the environment and the community. We also view sustainability as fundamentally a shift in economic value. What we are undergoing is real and systemic and it's a shifting of value.

At both the macro- and micro-levels, David saw the economic breaking points as opportunities. At the macro-level, David saw the economic collapse as an opportunity for a paradigm shift to take place at all levels of the economy. At the micro-level, David was personally involved in a business startup in the early spring of 2008 and saw the oncoming market breaking point as on opportunity to get in the game before the paradigm shift had taken place so that he might be in a competitive business position once the recession was over, as the country was coming out the other side of the crisis. This did not mean, however, that it was going to be an opportunity that would be easy to take advantage of. David recalled that his involvement with a governmental organization at the time allowed him the foresight to see the looming economic collapse. "By the time we got to mid-September, it was pretty clear in my mind that you couldn't put any assumptions on the table, and we were going to go into a real [economic] tailspin," he said.

While David was well aware of the severity and long-reaching nature of the impeding economic collapse, he also interpreted it as a major shifting point in the economy and ultimately the perfect time to "get in the game" with regard to his business venture. David said that he believed what the country was going to go through as a result of the recession was a major rethinking and restructuring of the entire economic system. He knew it was going to take time for the shift to fully develop and that it would be extremely difficult to make it through the crisis, but he was confident that it was both possible and important for him to do so. David's interpretation of the economic events and the paradigm he resided under resulted in several behaviors, both personally and organizationally.

Leader and organizational behavior

David recalled the fall of 2008 and spring of 2009 as being times of high stress and drama psychologically. David remembered sitting in meetings trying to close transactions on investment properties worth $400 million and watching all the other investors begin to walk out on the deals.

> There was a $400 million project and it was going down. And the complexity of all the mixed agendas. And sitting there and realizing "Shit, we went from $27 million in profit to where we are going to owe $25 million and we have nothing!" And it wasn't the drama of someone yelling at you that this was going to happen. It was the fact that you could do the fucking math yourself and sit there and during the course of the meeting and the conversation in your head just go, "Oh my God! What are we going to do! What does this look like! God! We just went on a $50 million swing!"

During the months of September 2008 through April of 2009, David said he believed it was important to remember where he believed the economy was eventually going to end up. He had to "suck it up" and remember his paradigm and his core beliefs and stick with it. He said he had to "accept that we are going into a harder sell knowing full well that coming out the back end of that that we will have hit the market signals, the market will have shifted, and we will be on the right side of the transaction."

During those months of brutal uncertainty in the market, David recalled several critical leadership and organizational behaviors that he saw as responsible for his organization's survival through the crisis. They were: staying calm and directed, having a clear goal to believe in, staying on course, and conducting ethical and truthful business practices**.**

At the peak of the crisis, tension began building as the multi-million-dollar projects that his team was a part of began falling through. David remembered the importance of calming his team and calming the counterparties involved in the deals. "It was just ugly! Everywhere you turned, it was a $20 million or $30 million blowup! Some cases, it was a hundred million dollars blow up! And all you could do is keep your cool."

While staying calm was a necessary characteristic throughout the chaos, it had to be coupled with seeking truth. David's team needed to understand the truth of the situation and the new climate in the market, so that they could react appropriately to the circumstances:

> [My] leadership was about calming the troops, you had to tell the truth and still calm the troops, you had to tell the truth and do what the truth implied and calm the counter party that was involved in the transaction because they might not be motivated to the same objectives. It was a crazy time. Ethics really did matter in that point of time. Because you had to decide which side. Doing the right thing or not doing the right thing to be part of.

David mentioned that his involvement with the government agency gave him the foresight to predict how ugly the recession was going to get. He knew it was going to be a crisis that would impact all levels of the economy, but he was also confident in what the eventual outcome would be. "I was much more directed about how I saw the market and how I saw our role in the market and what we had to do in the market and how we had to behave. What actions we needed to take," he said.

Ability to sustain through crisis

David said that the biggest positive coming from the crisis was his experience of what he considered real leadership. He commented that he was able to experience "real grit" and "real character." He said that he felt empowered himself watching other leaders trying their best to do the right thing and sticking to the core plan and beliefs, regardless of how hard it was.

I asked David to talk about a transformative experience that stemmed from the crisis and to take me into it. He said that the most transforming moments were not during the crisis, but directly following. He mentioned that, throughout the economic meltdown, his team was continually forced to reaffirm what they were doing:

> If anything, what it forced us to do was continue to reaffirm that even though between choice x and y, one being easier and the other one being harder, that we continued throughout the process in ‘08 and ‘09 to come up with moments of truth where we had to reaffirm “look you know this easier path only looks easier because it’s deceiving us, but the reality is we are going to have to do the harder path.”

David talked about the paradigm his investment firm resided under was much different than the status quo. David mentioned that it was very difficult for him and his team throughout the crisis to stick to their unique paradigm and what they believed would eventually change. However, David said that, as the years went on, he could see the paradigms of other investors begin to shift:

> In ‘09 and ’10, everyone was saying, “Ahhh, we don’t need [new ways of doing business].” And we were pitching new [paradigms]. New ways of thinking and new ways of investing. And we were getting a lot of doors slammed in our face. 2011 is when it started dawning on them that maybe it isn’t coming back. And 2012 was an interesting year because it was the year that the smart investor started to accept the fact that it wasn’t happening.

David reiterated that the transforming moments for him were in 2011 and 2012, when he saw the faith he had kept during the crisis finally coming to fruition and his business began to take off under newer economic paradigms that began to surface amid the newer structures of business. He remembered that, in 2008 and 2009, all he could do was fix problems in his portfolios. He had no other choice than to just have faith that what he was doing was the right thing, calm the troops as much as possible, and conduct his business as ethically as possible. He said it was not until the latter part of 2011 and 2012 that he finally saw businesses starting to shift into his paradigm.

> I think industrial companies, because they have been through peaks and valleys, and this was an especially deep valley, but I think they changed their operating strategies and operating styles. They changed. And they

> changed in a way that was surprisingly quick. You could see the numbers starting to fluctuate in '08 and '09 in our manufacturing sectors. But fundamental rethinking of the business model, I think a lot of that took place in '10 and '11.

I asked David whether or not he believed that the Great Recession influenced sustainability as he first defined it. He said that, before the collapse, no one cared about what he was doing and his definition. "Today, they care a lot," he said:

> Even if they don't want to save the planet, they do recognize that something is afoot here. I know for a fact that the number of conversations we are having about this is significantly higher and different than it was even as little as twelve and eighteen months ago.

David went on to talk about the difficulties in going against the norm. He said he spent many sleepless nights up worrying about whether or not his unique perspective of the world and business were correct. David said "hope and grit" are what got him and his organization through the economic crisis. David said he believed the more dramatic and long-reaching paradigm shift needed for a more sustainable economy would take place within the next decade. "I think this next decade you will respond to environmental, you are going to respond to sustainability, you are going to respond to deep globalization."

Discussion

Systems Thinking as a Foresight Methodology

Some authors contend that organizations, similar to biological entities, are naturally inclined to look to the future for hidden threats and use the information to prepare for safety (Pech & Oakley, 2005). In leadership, this characteristic is known as foresight. Foresight has been defined as "the systematic consideration of, and action on, the future" (Kaivo-oja & Stenvall, 2013, 29). The goal of foresight by leaders is to plan and prepare for the future, and use every opportunity available to shape the future to the organization's advantage (Kaivo-oja & Stenvall, 2013).

In the story David shared, he interpreted the breaking points as highly interconnected and complex phenomena. While the collapse of Lehman and the decline in the stock market could be considered by some to reside solely in the financial markets, David saw the crisis as a series of interconnected events. In fact, for David the breaking points were expected due to his foresight and awareness of the interrelated sets of problems leading up to the crisis. This awareness led to understanding that an impact would be felt throughout the economy, regardless of whether or not the collapse had begun in the financial sector.

These interpretations of the breaking points as having consequences and impacts throughout the economy are characteristic of systems thinking. Someone who holds a systems thinking viewpoint understands the relationships in and between systems, and how, when those relationships change, the entire structure of the system will change with them (Laszlo, 1996; Meadows, 2008, p. 16; Meadows, 1999; Weinber, 2001). David foresaw, through a systems thinking approach, that the economic collapse would translate into a "new landscape" or new environment.

Meadows (2008) used the economic system as an example of a complex open system consisting of multiple feedback loops and time lags residing within the loops and between other connected systems (p. 58). The system thinking paradigm understands how changes in elements or relationships within a system can impact the entire structure of a system (p. 16). Meadows (2008) argued that this was a foundational paradigm necessary for sustainability within the context of organizations.

David was keenly aware of oncoming chaos with regard to the recession. There was an understanding that, while the initial collapse was concentrated in the financial sector, the entanglement of relationships in the economic system would eventually create impact within various other sectors and fields across the economy, including health care. David internal construction and interpretation of the breaking points within the foresight methodology of systems thinking resulted in three behavioral themes, which are discussed in the following section.

Dialogue and Communication

David mentioned a significant increase in dialogue and communication that followed the economic collapse. This trait of dialogue, communication, and transparency was one that echoed repeatedly in the review of scholarship. During times of rapid organizational change, "the use of dialogue, discourse, or conversation is a prominent theme" and "dialogical communication is a process through which change can occur" (Hickman, 2010, 517).

One of the disciplines needed for a sustainable learning organization, according to Senge (1990), is the art of dialogue. Senge (1990) contended that dialogue was an essential element to team functioning during times of change, in that it allowed the group to think insightfully about the complex situation and helped to innovate and coordinate action (p. 219). The art of dialogue as a form of communication allowed organizations to see the problem from multiple vantage points (p. 226).

Harper and Stein (2006) suggested that one of the best ways to handle rapidly changing complex and chaotic problems was through dialogue (p. 7). However, Harper and Stein (2006) and Putman (1993) stated that the practice of dialogue required a form of leadership that differed from the traditional definition. It was a form of leadership that focused on the "autonomous individual person" (Harper & Stein, 2006, 7) and practiced civility, engagement, and community (Putman, 1993, p. 4). Senge (as cited in Hickman, 2010) called for "leadership networks" (p. 534) that function "like communities" (p. 534). These leadership networks are highly communicative and require a version of leadership that is both collaborative and relational (p. 535).

Leadership: Setting an example

The collapse of both Lehman Brothers and the Dow Jones Industrial Average during the month of September in 2008, was a damaging blow to the financial institutions and the stock market. However, the moments that stuck out the most in David's memories of his experiences were not necessarily ones of great financial loss, but the leadership and grit that he witnessed in himself and others during the crisis.

Elements of transformational leadership were seen throughout David's story. According to Northouse (2010), transformational leadership requires leaders to be strong role models for the beliefs and actions they wish their followers to adapt (p. 174). For David, it was important to "stay calm and confident for his team." David knew if he embodied panic, that panic would be contagious and ripple out through the rest of his organization. But, by setting an example of calm during crisis, his team was able to stay calm as well.

During times of chaos, Bussy and Paterson (2012) argued for a style of leadership that was more collaborative and transformational in nature and less authoritative and transactional. From this perspective, leadership would be more focused on setting the example for all parties involved than it would be about one specific person. Parks (2005) stated that leadership during chaos should enable people in order to create together something that works in the situation (p. 4).

Creating together and collaborating rather than directing and dictating requires a different kind of leadership similar to what Burns (1978), Northouse (2010), and Rost (1993) called for. It requires a transformational and relational style of leadership. This relational and transformative style of leadership "fits the needs of today's work groups, who want to be inspired and empowered to succeed in times of uncertainty" (Northouse, 2010, 171).

From David's point of view, his organization's success was due to the strong relationships he had fostered with his team and other organizations before the crisis hit. For David, having these relationships in place beforehand, allowed for a greater degree of trust and commitment during the crisis. These strong and lasting relationships helped him and his organization be more flexible.

In the middle of the financial crisis when things were at their highest levels of uncertainty, David mentioned the importance of staying calm. This theme of calm leadership during times of panic are consistent with what Ennis et al (2015), Hansen (2011), and Hollon (2009) all found in their research studies. According the Ennis et al (2015), staying confident and calm during uncertainty results in better organizational outcomes. For Hansen (2011), staying calm prevents widespread panic and can do more to establish a leader's reputation more than most situations.

Ethics, Values, and Truth

For David whose organization survived the collapse, the elements that emerged out of his stories as important were a relational and transformational leadership style that stays calm in the midst of crisis, transparency and communication, and staying true to one's core ethical values.

In a sense, the theme of staying true to one's core ethical values goes hand in hand with the other two themes of communication and relational leadership. Due to the relational nature of David's leadership, he felt the need to communicate the truth about the crisis and its implications to those around them.

Leaders who are perceived as being able to create and support an ethical culture in their organizations are those who represent, communicate, and role model high ethical standards, emphasize attention to goals other than economic, engage in "ethics talks," and maintain a long-term view of relationships both within and outside the organization. (Ardichvili, as cited in Hickman, 2010, 356)

Lewis and Lewis (2012) addressed this concept when they spoke about the importance for organizational leaders to have a high regard for ethics and values. What Lewis and Lewis (2012) call for are organizational cultures based on a firm foundation of core values. By doing this, the organization can build a strong reputation that can help it survive economic uncertainty. Similarly, Freeman and Auster (2011) studied the effects of the financial crisis on leadership and concluded that there was an increase in the importance of values and ethics among leadership. Freeman and Auster (2011) connected the relational nature of leaders with the increased desire for values and ethics within their organization. Freeman and Auster argued that responsible leaders should hold to a version of values and ethics similar to that given by Maak and Pless (2006), which was:

> A specific frame of mind promoting a shift from a purely economistic, positivist and self-interested mindset to a frame of thinking that has all constituents and the common good in mind. (p. 1)

Waddock (as cited in Hickman, 2010) noted that leadership in the new corporate era will require "aware leaders that have thought deeply about their own values and vision and, as a result, are prepared for the complex world they must face" (p. 612). Waddock went on to state that this awareness will not lessen the complexity and difficulty of the decisions leaders will be faced with, but it will help them make the right decisions if and when the chaos is high.

Paradigm Shifts

The essence of David's story is in paradigm shifts. For David, there were changes taking place at all levels of the economy and society and major paradigm shifts were going to take place as a result. This has immense implications for leadership, economics, and business.

I asked David what he believed to be essential characteristics of leadership coming out of the recession experience and moving forward into the next decade. He said he felt that the traditional, authoritative, masculine view of leadership was coming to an end and that an entirely new paradigm of leadership was underway. David mentioned that his experience with business and politics in both the West, as well as in other cultures around the world, gave him a unique perspective on leadership. He mentioned that he felt America's view of leadership is almost prejudiced and arrogant. For a business or a country to survive the next several decades, David believed they needed to start to understand the interconnectedness of the world, and that there are major parts of the world that just do not need America's assistance. David argued that leadership in the 21st century must be about diversity, relationships, and approachability in order for organizations to survive.

> Between volatility and the restringing of the world, and I don't just mean the Internet, I mean real restringing of the world. So, I think leadership in this next decade is . . . diversity can't be just a word it is about embracing it. It is embracing the fact that business is done out there and in societies that we know nothing about, and it has to be much more tolerant of volatility. Leadership should also be relational and approachable. I think that is one of the aspects of leadership that is going to be critical. We need that approachability and the human factor.

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II.

“Equalizing” Leadership – The “Value Shift” in Current Approaches of Leadership for the Future

Values-Oriented Leadership – Discovering Meaning, Exploring Options, Realizing Values

Thomas Mengel

Abstract

First, this chapter explores the shift of leadership theory from leader centrism to process orientation. Second, we present Victor Frankl's concept of the human will to meaning and its application to organizational environments. Finally, we comprehensively describe the concept of values-oriented leadership and presents it as futures-ready concept of leadership.

Keywords

Values-Oriented Leadership; values; meaning; leadership paradigms; logotherapy; existential analysis

1.0 Introduction

As humans we search for meaning, strive for realization of values, and aim for a purpose greater than our individual selves (Frankl 1959). Values orient and affect our personal lives, our work and communities, and how we engage in leadership processes in our communities, organizations, and societies (Mengel 2004, 2019a, 2019b, 2019c; Pattakos 2017; Mengel and Boccuzzi 2018; Mengel, Tantawy, and McNally 2018). While values are increasingly recognized as important concepts in leadership and leadership development (Elkington et al. 2017), this chapter comprehensively describes the concept of values-oriented leadership and presents it as futures-ready concept of leadership.

2.0 From Traits to Values: The shift from leader centrism to process orientation

The development of leadership theories and models up to the end of the 20th century can be characterised by at least five main discernable leadership paradigms (Table 1 Development of leadership theories): traits; behaviours; situations; relations; and ethics (Northouse 2019; Gosling and Marturano 2008; Mengel 2008a). These leadership paradigms interestingly coincide with five different schools of psychology: psychoanalysis, behaviourism, cognitive psychology, roles psychology, and humanistic psychology (Hothersall 2004). Finally, these psychological approaches appear to be focused on five respective anthropological premises and guiding principles: satisfaction and sublimation (homo volens); stimulus and response (homo mechanicus); homeostasis and rational decision-making (homo sapiens); adaptation and relationship-building (homo sociologicus); and personal growth and self-actualization (homo humanus) (Mengel 2003).

Following the idea that in order to be a leader one had to be a "great man", the first leadership theories, starting at the early 1900s, developed with a focus on (personal) traits mostly if not exclusively of men, as key characteristic of effective leadership (Northouse 2019). In parallel, Sigmund Freud and other psychoanalysts identified the satisfaction and sublimation of human desires as drivers of human action and – often unconscious or subconscious – decision-making (homo volens). Both approaches shared the emphasis on personal characteristics as triggers for human behaviour (including leadership).

Since leadership scholars were never able to agree on a common list of effective leadership traits, they started shifting their attention to observable behaviours of "leaders" in the 1940s. Likely influenced by the school of behavioural psychology (homo mechanicus: certain stimuli automatically trigger certain responses), the main concept of the behavioural theory of leadership was that successful leadership outcomes (responses) must effectively have been triggered by certain leadership behaviours (stimuli). Hence, by observing what leaders did and to what effect, leadership scholars tried to identify effective leadership behaviours (Mengel 2008a; Northouse 2019).

Table 1: Development of leadership theories (expanded from Mengel 2003, p. 4)

	1900-1950s	***1940-1950s***	***1960s***	***1970s***	***Since 1960s***
Leadership paradigms	Traits	Behaviours	Situations	Relations	Ethics
Schools of psychology	Psychoanalysis	Behavioural Psychology	Cognitive Psychology	Roles Psychology	Humanistic Psychology
Anthropological premises	Satisfaction and Sublimation (homo volens)	Stimulus and response (homo mechanicus)	Homeostasis and rational decision-making (homo sapiens)	Adaptation and relationship-building (homo sociologicus)	Personal growth and self-actualization (homo humanus)

It became clear, however, that not all behaviours were effective in any context; the effect of leadership behaviours seemed contingent on the situation. Therefore situational – or contingency – theories developed in the field leadership scholarship in the 1960s. At the same time, "cognitive psychology" explained human behaviour through rational decision-making (homo sapiens) and on the principle of balance (homeostasis). As a result, certain kinds of leadership behaviour were identified as effective in respective situations and contexts; to be effective in certain situations, leaders had to choose the behaviour proven effective in these contexts (Northouse 2019).

In the 1970s, research started to move away from the leader as being the sole focus of leadership studies and increasingly conceptualized leadership as an effective relationship (Northouse 2019). In addition, roles theory in social psychology contributed the understanding that individuals find themselves in different roles (e.g., mother, daughter, teacher, student, manager, employee, etc.) that require different kinds of behaviours and decision-making. In this perspective, humans adapt to the different role requirements and – more or less intentionally – start building the resulting relationships accordingly (homo sociologicus; Ross, Amabile and Steinmetz 1977; Mengel 2003).

More holistically, humanistic psychology (e.g., Maslow and Rogers) took a broader look at human actors as human beings (homo humanus). As a result, concepts and models of personal growth and self-actualization came into focus (Maslow 1943, 1966). In leadership these concepts strongly affected leadership development for many years to come. The refocus on what it means to be human also affected a stronger emphasis on what leaders – and followers – ought to do. Leadership ethics, values, and meaning have been a central component of leadership theory and practice ever since (Northouse 2019).

3.0 Values, Meaning, and Values-Oriented Leadership

3.1 The Human Will to Meaning

The late Viennese psychiatrist and psychologist Viktor E. Frankl (1905-1997) arrived at his concepts of values and meaning in the context of his motivational theory (Frankl 1959, 1969, 1985; Mengel 2008b). These concepts remain influential today in spite of some concerns about inappropriately sanctifying Frankl (Pytell 2000, 2017). Motivation and influence are core concepts of many leadership theories and practice, and Frankl's influence warrants better recognition and integration.

Maslow's (1943) theory of motivation is still prevalent in many leadership education and development texts (Shriberg, Shriberg and Kumari 2005). This is surprising given that it is based on the often-disputed psychodynamics introduced by Freud and Adler. On the other hand, Frankl's (1959) research on "Man's Search for Meaning" leading beyond the earlier focus on pleasure and power as key human motivators, "has not yet been fully recognized" (Mengel 2008b, p. 112). Yet, Frankl's concept of the human "Will to Meaning" (1969) could inform a more holistic theory of human motivation and of "values-oriented leadership" (Mengel 2004, 2008b).

In much of the leadership literature, Maslow's (1943) "hierarchy of basic needs" (physiological, safety, love, esteem, and self-actualization needs) is presented as sequential pattern of need satisfaction. However, Maslow states the "pre-potency" especially of the physiological and safety needs (i.e., the urge to first satisfy these needs and to ignore others) to be particularly significant in the state of severe deprivation; in times of relative health and wealth, the pre-potency weakens. Furthermore, Maslow emphasizes the existence of variations, whereby people prioritize the satisfaction of higher-level needs in spite of lower-level needs not being fully met. Also, any particular human behavior can simultaneously serve the satisfaction of various needs from different levels. Finally, Maslow preferably interprets the sequential character of his hierarchy as stages of psychological development. For example, as verified by Reiss and Haverkamp (2005), young people tend to focus on the lower levels of needs, whereas the need for esteem and self-actualization is prevalent within the group of mature adults. However, as to the most important motive of human behavior, Maslow did agree with Frankl (1959) that "man's primary concern is his will to meaning" (Maslow 1966, p. 107).

In analysis of the approach of Freud and Adler, Frankl (1959, 1969) has pointed out that focusing on the satisfaction of the will to pleasure or the will to power are the result of the frustration of man's primary "will to meaning" and often lead to an "existential vacuum". While power can be a means to the end of finding meaning, and pleasure and happiness may ensue the discovery of meaning, humans primarily search for individual meaning based on their personal situation. In response to their challenges, they need to engage in creating or doing something meaningful (creative values), in having a valuable experience with someone or something (experiential values), or to choose their attitude toward a given situation by reframing or interpreting it in a meaningful way (attitudinal values); transcending one's self-interests does help facilitate the discovery of meaning (Wong 2014).

Frankl's motivational theory provides an anthropological basis for the importance of values in leadership processes and for the need to create meaningful work environments. Cooperatively identifying and implementing shared values, goals, and objectives, provide ample opportunities for discovering meaning and for creating a meaningful work environment (Mengel 2004; Yukl 2005).

However, it is important to note, that the different sources and dimensions of meaning motivate individuals (and in turn communities) differently depending on the personality traits of individuals and the make-up of the communities (Mengel 1999, 2004; Rothmann and Coetzer 2003). For example, individuals that are rather extraverted and dominant – and by extension communities that consistent of a high percentage of individuals oriented that way – tend to be motivated by competitive challenges and tasks; they often strive for power, freedom, and achievements. Introvert, conscientious individuals or communities are rather motivated by stability, cooperation, and accuracy (Mengel 1999).

3.2 Values and Meaning in organizational environments

Our own research on the significance of personal and organizational values, and on the process of discovering meaning, in the context of project organizations also does shed light on the significance of values and meaning for leadership and thus substantiates a "values-oriented leadership" theory (Mengel 2004; Mengel, Cowan-Sahadath and Follert 2009). Values have been found to be "essential for encouraging cooperation, inspiring commitment, nurturing creativity and innovation, and energizing the organization's members around a positive self-image" (Paine 2003, p. 12). They appear to significantly contribute to a compelling sense of purpose beyond making money.

For project environments in particular, the importance of an attractive vision and a shared set of values and beliefs have been stressed (Keegan and Den Hartog 2004; Kendra and Taplin 2004). It has been identified as a significant project success factor and contributor to business outcomes (Briner, Hastings and Geddes 1996; Christenson and Walker 2004; Norrie and Walker 2004). In addition, cooperation and commitment among teams of people "are significant drivers to high project performance. . .. [They] are greatly enhanced when project leaders foster a work environment where people see the purpose and significance of their projects" (Thamhain 2004, p. 45). Creating "a more powerfully committed team . . . [with] a deep sense of purpose and vision" has even been argued to be "the essence of good project leadership" (Norrie and Walker 2004). These findings seem to support Viktor Frankl's research on the importance of values and meaning (Frankl 1959, 1969, 1985) and its translation into work and project environments (Boeckmann 1980; Covey 1989; Martin 2000; Mengel 2004, 2008b; Mengel and Thomas 2004; Pattakos 2017; Thomas and Mengel 2014).

In our research (Mengel, Cowan-Sahadath and Follert 2009), we were particularly interested in the following question: how would personal and organizational values as well as meaningful work and project environments influence the interplay between the constructs of project management implementation, organizational context, and value constructs, and how might they contribute to added value for the organization? Five case studies were conducted: three in Canadian government organizations (an information systems department within a provincial regional health authority, an information technology department within a federal bureau, and a national research institute); one in a business unit of a Canadian private company in the energy industry; and one in a private German information technology service organization. To enrich our overall case study, we have adopted the approach of coding and deriving at categories from grounded theory methodology when analyzing our case data (Strauss and Corbin 1994, 1998). Furthermore, a comparative content analysis (Krippendorf 2004; Weber 1990) using the Leximancer software (Smith 2007; Leximancer 2018a, 2018b) has been applied to the quotations on the value of project management within the interview transcripts. As a result, several relevant concepts were identified.

The concept of "people" was of great importance to four of the five case studies investigated. When "people" are mentioned in the corresponding pieces of text, they are referred to as carriers of emotions and needs who may feel interested, trusted, and/or motivated and thus may become agents of change, or they may feel demotivated and frustrated. In general, "people" were recognized as (the most) important entity, who need to be addressed in terms of their emotions and motivations and who can substantially contribute to the success of the organization through their level of motivation and their strategic deployment.

This notion is supported by the co-occurrence of the concepts "planning," "process," "work," "organization," "result," "time," and "money" (the latter interestingly being the concept most distant from “people”): obviously people were associated with planning, process, and work in an organization and what they do or don’t affect results, time, and money. It should be noted that the concept of “control” is not correlated with “people”. This seems to support the notion that people can be motivated and frustrated but not as easily controlled.

“Control” strongly co-occurs with “multiproject,” an indication that “control” might play an important role in the context of a “multiproject” reality. Note that all other concepts co-occurring with “control” overlap with the concepts co-occurring with “people”: a potential indication that we may control the (multi-) project aspects of process, planning, work, organization, results, time, and money, but not the people aspects of the same entities. These two perspectives of the same realities need to be clearly differentiated! What is most distant to “people”—namely, “money”—is most closely related to “multiproject” and “control.”

The studied organizations appear to have been aware that they may control the money side of their operation but need to motivate the people side of it. Finally, the concept of “control” was most important to the Canadian Energy company and to the German Finance company; the fact that those two case studies were the private enterprises within our set of case studies suggests that “control”—particularly of the “money” side of its operation—is of utter importance to business operations. It may also suggest that business organizations in particular need to be careful about not confusing the people and control aspects of their operations. The case of the Canadian Federal government organization is of particular interest because it did not with any significant frequency refer to the concept of “people” which appears to be of importance to all other case studies. Interestingly, this IT department within the Canadian federal government appeared particularly concerned with “money,” followed by the concepts of “result” and “process.” The related pieces of text highlighted the emphasis of this case-study organization on the need to justify investment in any given area, at least at the time of data collection. “Result” in relationship to “money” invested into any given “process” appears to have been of dominant importance for this organization at the time.

The concept of “process” was central to all other concepts and to all case studies investigated. All organizations studied are process-oriented and—given the close relationship between “process” and “result”—also results-oriented. In consideration of the conceptual proximity of the Canadian Health organization to the central concept of “process,” it may be fair to say that this particular case study is the most balanced one in terms of process orientation and with regard to the other important concepts highlighted in this analysis.

3.3 What Does It All Mean? – Values-oriented leadership

Our particular research questions and the chosen methodological approaches around values and meaning have resulted in the following findings:

1. A variety of elements that allow for the discovery and making of meaning are reported and demonstrated to be put in place by the organizations and their employees.
2. Engaging in professional activities in one's chosen field—whether it be public service, engineering, business, or research—providing service to others and to the overall improvement of the organization and doing so with adequate competency and with the help of supporting tools and processes, appear to be of significant creative value to employees. Being able to do this in a work environment that is perceived as supportive and providing adequate processes and tools can substantially enhance the feeling that one is doing something of value; whereas the perception of too much bureaucracy may to some degree reduce the joy of professional engagement, it cannot totally eliminate the satisfaction that comes with creating meaningful results, which is inherent in participation in a chosen professional community.
3. Putting people first and being able to cooperate and communicate effectively across internal and external boundaries based on a joint methodological framework and on sufficiently shared values have proven to be important components of actualizing experiential values. Experiencing a sense of belonging (e.g., even to a small community of like-minded colleagues) will be more important than perceiving friction between one's own group and others. Most importantly, people need to feel recognized as human beings with emotions and they want to be addressed as such. While control may be a valid approach for managing nonhuman resources, leadership needs to be concerned with humans, their emotions, and their motivations.
4. The experience of being valued and of contributing to a greater and/or personally fascinating cause—health (case study 1), national effort (case study 2), research (case study 3), solving challenging and complex engineering and business problems (case studies 4 and 5)—appear to be significant prerequisites for individuals and teams in

> making sense of challenges to the status quo, of dynamically evolving contexts, and of continuously and sometimes drastically changing work environments. As long as pride in one's work and the ability to solve challenging problems, as well as a sense of accomplishment in contributing to a greater cause, are valued and nourished by the organization and its leadership processes, people in project-oriented organizational environments appear to continue their commitment beyond duty and their engagement in joint sense-making efforts, even in light of substantial challenges and changes from within and outside the organization.

The results of this particular research approach and perspective contribute to a better understanding of commitment and motivation of people and of the importance of values and meaning as key concepts of leadership. These results also contribute to more precisely placing these factors within the various value dimensions and to better understanding their interplay with the implementation of management approaches like project management in particular organizational contexts. Finally, the results of this research inform our "values-oriented leadership" approach and may help leaders and managers understand how and when to integrate personal and organizational values into their leadership approach as well as organizational strategy development and implementation.

4.0 Key components of Values-oriented leadership (VOL)

The focus of the VOL concept has recently been supported by research on leadership in the so-called VUCA (Volatile, Uncertain, Complex and Ambiguous) environment where "meaning making" and "ethical leadership" where identified as core concepts (Elkington et al. 2017). In addition, "values-producing networks" – with reference to Frankl on page 197ff – have also been identified as major building blocks for "societal transformation" of Finland from 2018 to 2037 (Kuusi and Vasamo 2015).

Other research results that inform and support the "values-oriented leadership" approach come from the areas of happiness research and positive psychology. For example, various publications resulting from the so-called "Harvard Studies" point to the following significant contributors to well-being and happiness: attitudinal adaptation (choosing to be happy with what you do), strengthening close relationships, and doing something that is good for you, for others, or for the overall context you find yourself in (Vaillant 2012). Further, maintaining positive relationships and tasks in our daily lives is also repeatedly presented by happiness researcher Sonya Lyubomirsky (2007). Similarly, the leading proponent of positive psychology Martin Seligman (2018) recently summarized his findings using the PERMA acronym: humans feel happiest when they experience pleasure, engagement, relationships, meaning, and accomplishments. Finally, and very recently, Paul Wong combined the results of his ongoing work by integrating his Model of Mature Happiness (including the human quest for meaning in the light of suffering) and a Complete Model of Wellbeing with the meaning of life at the centre (Wong forthcoming). Again, all of these results intuitively and explicitly support Frankl's concepts of creative, experiential, and attitudinal values (Frankl 1959, 1969, 1985) and their application in the context of work environments and leadership (Mengel et al. 2009; Mengel 2004; Pattakos 2017).

Wise leadership and collective wisdom are two concepts emerging from recent research and discussions that also speak to the significance of values in the context of leadership and cooperation, even on a global level. The Human Advancement Program – an "international initiative to raise global collective wisdom" (Nylander 2016, p. 24) – discusses the role of "positive values" in the context of initiating positive change on a holistic and planetary level. Research on wisdom and leadership demonstrates that wise leaders move towards the transcendence of self-interest by building shared relationships and contexts of a joint understanding of and orientation towards the common good (McKenna, Rooney and Boal 2009; Nonaka and Takeuchi 2011). In addition, foresight is also mentioned as key competency of wise leaders (McKenna, Rooney and Boal 2009), which will be crucial in exploring meaningful futures together (Mengel 2019c).

VOL differs from similar concepts like "values-based leadership" (Barrett 2013, n.d.; Kraemer 2011; Graber and Kilpatrick 2008; Copeland 2014) or "competing values leadership" (Cameron et al. 2006) in that VOL entails a focus on discovering, identifying, and realizing a shared set of values and on making meaning in this process. This focus is strongly based on and validated by Frankl's foundational and the author's own case study research (see above). Further, the emphasis on "values-orientation" rather than "values-based" or "competing values" more clearly and appropriately expresses the dynamic of individuals and organizations engaged in leadership processes. Values are not simply "there" for leadership to be based upon them or statically compete against each other.

As our research has indicated, values need to be discovered, created, negotiated, and explored. Leadership processes and relations orient themselves and/or their organization towards shared values that first need to be jointly discovered or created and that may change and be changed by discourse and throughout the life of individuals and/or organizations. While grounded in the individual, organizational, and cultural history, values and by extension values-oriented leadership, are implemented in the presence, and they help orient individuals and organizations towards potential and preferred futures; as such, values-oriented leadership is futures ready.

VOL entails both the personal and the organizational perspective. In the personal, the theory addresses personal responsibility, personal responsiveness and self-leadership (or personal VOL). In the organizational context, social responsibility, social responsiveness, and organizational VOL are addressed (Pattakos 2019).

In values-oriented self-leadership, facing various challenges and situations, a person feels their life to be full of meaning and intact in as much as they orientate themselves towards the richness of what they shall, will, and can do, and as far as they indeed translate that into action. Wherever they stay behind they feel their life to be broken and limited according to the tragic triad of pain, guilt, and death. In freely and responsibly organizing their life and by consciously dealing with their failures and limits, people become entrepreneurs of their personal and social future; they discover and – and this goes beyond Frankl's concept of meaning discovery – create meaning for themselves and potentially for others. They do so by doing or creating something meaningful (realizing creative values), by experiencing something or someone as meaningful (realizing experiential values), and by (re-) discovering a meaningful attitude towards something, they may not be able to change (realizing attitudinal values).

In VOL, an organization (e.g., business organization, not-for-business, government organization) is perceived as meaningful and valuable in as much as its products and services (realizing creative values) are well accepted and purchased. Therefore, the organizational process within a given organization not only has to be designed according to its purpose (management) but it also has to be translated in a meaningful and values-oriented way (leadership); the latter includes creating and implementing cooperative processes that stakeholders experience as meaningful (realizing experiential values) and creating meaningful narratives about changes the organization undertakes and new directions it wants to pursue (realizing attitudinal values). An organization succeeds in as much as the managers and leaders succeed in integrating the personal life of as many members of all stakeholder groups as possible into the process of designing the organization's culture and strategy and as they manage to get involved as many stakeholders as feasible in that process; in other words, an organization can only be as successful as it effectively identifies and creates a set of shared values that orient the leadership and management processes of the organization (Mengel 2004).

Finally, our approach relies on followers' and leaders' abilities to discover, create, and explore meaningful options by intelligently pursuing the questions of why and what for. These require expanding the concepts of a three-dimensional model of intelligences – entailing cognitive – IQ –, emotional – EQ –, and spiritual – SQ – intelligence) and by placing it within the context of a more comprehensive review of the relevant literature also about complexity research (Mengel and Thomas 2004).

5.0 Summary, conclusion, and recommendations

In this chapter I have introduced the concept of values-oriented leadership as core concept of leadership. VOL is based on and developed from Frankl's anthropology centred around the human quest for meaning (Frankl 1959, 1969, 1985; Wong 2012, 2014). By practicing VOL, leaders and followers, all actors in the leadership process, create and do something meaningful (creative values), they engage in meaningful experiences (experiential values), and they develop meaningful attitudes (attitudinal values). Values in these different dimensions are discovered or created individually and together among those who live and/or work together. As communities on a personal, social and professional level we jointly engage in identifying shared values and in making meaning together. VOL focuses on facilitating the process of individual and joint meaning making to achieve meaningful results together.

Values are a core concept of co-creating meaningful futures (Motti 2019; Mengel 2019c). "Meaning-making" further was identified as key element of navigating volatile, uncertain, complex and ambiguous environments (Elkington et al. 2017). Hence, values-oriented leadership is futures ready and needs to be a core component of futures-oriented leadership; and maybe science fiction is one of the methods to explore and to enact that approach (see my chapter From Earth to Mars later in this book).

The American science fiction writer Kim Stanley Robinson has recently published on opinion piece on "How the Corona Virus is rewriting our imagination" (2020). In particular, he claimed that "science fiction is the realism of our time. The sense that we are all now stuck in a science-fiction novel that we're writing together—that's another sign of the emerging structure of feeling... Valuing the right things and wanting to keep on valuing them—maybe that's also part of our new structure of feeling" (Robinson 2020).

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Mindful Leadership: Transform Your Self, Organization, and Society

Charlene D'Amore

Abstract

Mindful leadership facilitates the self-actualization of individuals, organizations, and societies. Through the process of self-actualization, social transcendence occurs where individuals, organizations, and societies are no longer constrained by societal rules and instead are governed by universal human rights of love, compassion, cooperation, co-responsibility, and authenticity. By becoming whole through the conscious integration of inner and outer realities, individuals, organizations, and societies create a synergistic, authentic creative force and achieve self-transcendence, where the higher self permeates through each entity connecting all people as one. Through the practice of mindfulness, leaders demonstrate their own self-actualization and encourage other individuals in their organization to practice mindfulness each day. By incorporating daily mindfulness practices, employees and organizational leaders can incorporate elements of cooperation, co-responsibility, authenticity, and interdependency to foster creative energy and self-actualization in their organizations and society.

Keywords

Self-actualization, mindful leadership, spiritual development, workplace spirituality, social transcendence

The development of mindful leadership is crucial as organizations move into a more globally dependent and interdependent world (Fry and Cohen 2008, 266). Members of an organization may be empowered to contribute their best selves through spiritual development and mindful leadership that enhance self-actualization. These practices result in more authentic individuals, organizations, and societies (Fry and Cohen 2008, 268;

Nooralizad, Ghorchian, and Jafari 2011, 14). This chapter first explores the concept of mindful leadership and examines how mindful leadership extends spiritual, transformational, servant, authentic, and ethical leadership. Next, the impact of spiritual development and mindful leadership is examined at the micro, meso, and macro levels. This chapter concludes with an application of spiritual development and mindful leadership practices to view the evolution of spiritually developed, mindful individuals, organizations, and societies.

Leadership Theories

This section first explains the concept of mindful leadership. Next, mindful leadership is applied to spiritual leadership, transformational leadership, servant leadership, authentic leadership, and ethical leadership to extend each of these theoretical platforms.

Mindful Leadership

The practice of mindfulness cultivates self-awareness, where a person observes each experience with openness and without judgment. Mindfulness is being attentive to and aware of what is taking place at each present moment (Kinsler 2014, 99; Vogus and Sutcliffe 2012, 723). According to Brown and Ryan (2004, as cited in Kinsler 2014, 99-100), mindfulness allows for self-regulation by providing a space for decision-making and reducing the tendency for an automatic response. Northouse (2013, as cited by Figueroa 2014, 117) suggests leadership is a process available to everyone, and the type of leadership practice affects the leader and followers. The practice of mindfulness can be applied to and extend spiritual, transformational, servant, authentic, and ethical leadership.

Spiritual Leadership

According to Fry and Cohen (2008, 269-70), spiritual leadership is when leaders transcend self-interest through a mix of humility and professional will to develop the spiritual well-being of followers and themselves. Spiritual leadership is centered on an intrinsic motivation model that incorporates vision, hope, faith, spiritual well-being, and altruistic love. This model leads to higher levels of employee well-being and organizational commitment, financial performance, and social responsibility (Fry and Cohen 2008, 271-72). To increase workplace spirituality, Eisler and Montuori (as cited in Rozuel and Kakabadse 2010, 428) outline four conditions leaders need to develop if they are to engage in spiritual leadership: listening to their inner voice; becoming fully conscious; understanding empathy, caring, and responsibility; and practicing these conditions in relationships. Fry and Cohen (2008, 267-68) further suggest spiritual leadership incorporates and extends transformational, servant, authentic, and ethical leadership. Mindful leadership is the conscious employment of spiritual leadership to encourage the development of employee and organizational well-being.

Transformational Leadership

Transformational leaders, according to Burns (2003, 26) inspire and empower their followers to work together to achieve goals. Through a process of mutual actualization, leaders evolve their leadership to meet the needs of their followers, while using charisma to influence their followers to become better versions of themselves and to work for the betterment of the organization (Burns, 2003, 143-144; Conger 1999, 155-56; Gardner, Cogliser, Davis, and Dickens 2011, 1130). Mindful leadership extends transformational leadership, according to Karakas (2010, 85), when leaders support positive expressions of spiritual values such as cooperation, appreciation, and compassion at work. Transformational spiritual leaders support spiritual values by learning more about the meaning and value followers attach to spirituality at work, by discovering the variety of spiritual experiences at work, by understanding and accommodating the diverse spiritual needs of employees, and by designing organizational structures, policies, and programs to support expressions of spirituality at work (Karakas, 2010, 87). By acting mindfully, a transformational leader uses charisma and positive energy to guide followers to practice mindfulness at work and in their personal lives.

Servant Leadership

Servant-leaders create an atmosphere of trust and acceptance, where people feel free to make mistakes (van Dierendonck 2011, 1233-34). According to van Dierendonck (2011, 1234), servant-leaders practice interpersonal acceptance, which is the ability to understand and accept the feelings and experiences of others. As a reflection of a servant-leader's belief and recognition of the intrinsic value of each person, servant leadership empowers and develops individuals (van Dierendonck 2011, 1233). Servant-leaders act with humility and authenticity, putting the needs of others before themselves, fulfilling their promises, and leading followers with visibility and honesty (van Dierendonck 2011, 1232). A servant-leader acting with mindfulness employs spiritual principles, including kindness, acceptance, generosity, compassion, patience, forgiveness, and love, to serve their followers and nurture their followers' service to others (Chopra, Ford, and Williamson 2010; Dunnavent 2003).

Authentic Leadership

Similarly, by incorporating spiritual principles in a mindful way, authentic leaders act as role models for followers as they develop mindfulness and spirituality. According to Gardner et al. (2011, 1121), authentic leaders are self-aware and humble. Leaders who are authentic work to create and maintain meaningful relationships built on trust and mutual respect (Gardner et al. 2011, 1122). Authentic leaders foster the positive self-development of their followers and are committed to the success of their organizations (Gardner et al. 2011, 1122). They lead with intention and purpose, which is centered on their strongly held beliefs and convictions (Gardner et al. 2011, 1123). Through their daily practice of mindfulness and the spiritual principles such as kindness, acceptance, and patience, authentic leaders act as beacons for followers as they travel along their life journeys.

Ethical Leadership

As leaders practice mindfulness, they become more ethical, spiritual leaders. Thakadipuram's (2010, 470) leadership wholeness model illustrates a spiritual leader's influence on an organization's trust, solidarity, and co-responsibility. Furthermore, Fry and Cohen (2008, 267-68) define an ethical well-being as living with integrity according to one's values, attitudes, and behavior. Ethical leadership depends on a leader's moral character and the ethical legitimacy of a leader's vision and values (Fry and Cohen 2008, 267-68). By creating a mindful, principled-center self that is congruent with universal spiritual principles such as love, compassion, and forgiveness, ethical leaders build trust, solidarity, co-responsibility, and acceptance for the moral choices and actions they engage in and followers collectively pursue (Fry and Cohen 2008, 267-268). Next, the impact of spiritual development and mindful leadership is examined at the micro, meso, and macro levels.

Micro Level Spiritual Development

Micro level spiritual development refers to an individual's spiritual development and how this action of spiritual development affects other individuals.

Individual Spiritual Journeys

According to Rozuel and Kakbadse (2010, 427), an individual decreases the fragmentation and compartmentalization between ego self and whole self to live more consciously each day through an effort of self-awareness and consciousness. Thakadipuram (2010, 468) interviewed ten spiritual leaders and compiled four themes based on each leader's personal spiritual development and quest for wholeness. Each leader's quest started with an experience of existential crisis, which triggered an embracing of the light and shadow selves (Thakadipuram 2010, 470-71). According to Thakadipuram (2010, 471), an existential crisis is important because it causes a person to question old ways of acting and explore new ways and opportunities. After exploring their light and shadow selves, individuals awaken to a higher perspective and foster a practice of co-responsibility (Chopra et al. 2010; Thakadipuram 2010, 472; Tolle 2005).

Rozuel and Kakabadse (2010, 428) support Thakadipuram's (2010, 472) findings through their definition of spirituality. According to Rozuel and Kakabase (2010, 428), spirituality is our inner consciousness, inspiration, creativity, and wisdom that generates our desire to connect with everything in our striving towards wholeness. Additionally, Berryman (1978) depicts human development through life stages (see Figure 1). Because each individual proceeds at a unique rate through life stages, not all individuals reach the levels of transcendence, openness, and universal love before they die (Berryman 1978; Tolle 2005). By recognizing these various life stages, spiritual leaders assist and support followers as they progress through life.

STAGE AND AGES	LOGIC AND WORLDVIEW	AUTHORITY AND MORAL JUDGMENT	SOCIAL AWARENESS	LIFE TASK AND STANCE	ROLE OF SYMBOLS	PATHOLOGY
Child (0-12) (Construction of Character)	Intuitive-Projective Episodic Mythic-Literal; Narrative-dramatic	Located in attachment, trust, and dependent relationships	Family "Those like us" (family, ethnicity, class, etc.)	Develop basic trust and harmony *I am with you.*	Magical-Numinous One-dimensional, Literal	Passively dependent
Adolescent (13-20) (Rebel) (Construction of Personality)	Synthetic-Reflexive; Tacit System	Located in valued group or personally worthy representatives	Conformity to class norms and interests	Develop ability to doubt, criticize, and resist exterior authority *I am against you.*	Multi-dimensional; Conventional	Alienated within a negative identity, Paranoid
Adult (20+) (Construction of Character Armor)	Individualistic-Reflexive; Explicit System	Located in personally appropriated spokespersons or group procedures	Self-aware adherence to chosen class norms and interests	Build self-confidence, self-esteem, a strong ego *Coping*	Critical translation into ideas	One-dimensional; Boredom

Outlaw (40+) (Destruction of Character Armor)	Paradoxical-Consolidative; Multi-systemic	Located in between self-chosen beliefs and those maintained by others	Critical awareness of and transcendence of class norms and interests	Exploring the limits of the self; *Transcending*	Post-critical rejoining of symbolic nuance and ideational content	Alienated in arrogance and cut off from community; Power, but no love
Lover and Fool (60+) (Life Beyond Character)	Universalizing; Unitive; Actuality	Located in judgment purified of egoistic striving and attentive to Being requirements	Trans-class awareness and identification	Openness; Unself-consciousness; *Lover*	Transparency of Symbols	None

Figure 1. *Combined Life Stages from the Work of James Fowler and Sam Keen*. Based on: Berryman, Jerome, ed. 1978. *Life Maps: Conversations on the Journey of Faith with James Fowler and Sam Keen*. Waco, TX: Word, Inc.

Moral Decisions

Life stages also contribute to understanding the moral decisions of individuals. In the ongoing formation of self, moral decision-making and the enactment of moral decisions are critical because individuals strive for consistency between actions and aspirations according to Rozuel and Kakabadse (2010, 425-27). Citing Carl Jung's psychology, Rozuel and Kakabadse (2010, 428) state the eventual goal of consciousness is knowledge of self, which is the archetype of wholeness and the collective unconscious. The self helps us unite and accept our inner dualities to become who and what we are after integrating collective societal rules and then differentiating ourselves from them (Chopra et al. 2010; Rozuel and Kakabadse 2010, 428; Tolle 2005). Each person can develop mindfulness and spirituality; however, self-reflection is often not nurtured in our fast-paced, materialistic world (Chopra et al. 2010; Tolle 2005).

Individuated People and Agency

Rozuel and Kakabadse (2010, 428) distinguish individuated people and individualistic people. Individuated people have grown out of the community, but they still feel a deep respect and connection for it, based on a shared humanity (Rozuel and Kakabadse 2010, 428). In contrast, individualistic people do not care for the community because they are focused on themselves (Rozuel and Kakabadse 2010, 428). An individuated person's actions reverberate in the person's environment bringing change and possibly evolution (Rozuel and Kakabadse 2010, 428). Because of this action, individuated people tend to develop leadership potential as their influencing ability increases (Rozuel and Kakabadse 2010, 428). Therefore, individuated people lead their organizations in building an interconnected society and world.

Analyzing the influence of individuals' interactions on an organization's structure, Giddens (1987, 280) finds agency is enabled and constrained by the available resources, the legitimacy of actions, and the established routines and expectations. Because society is composed of layers of stakeholders including individuals, groups, organizations, and societal sub-groups, there are various internal and external constituencies with moral stakes in each organization's performance and spiritual development (Giddens 1987, 282-84). As members of organizations and societies, individuals affect organizational spiritual development by employing agency to advance their personal spiritual development and mindfulness.

Meso Level Spiritual Development

Meso level spiritual development refers to the influence of spiritual development and mindful leadership in workplaces and organizations.

Workplace Spirituality and Spiritual Anchors

Since an organization is composed of individuals, an individual's mindfulness and spiritual development is connected to an organization's spiritual development, and an organization's spiritual development is connected to an individual's spiritual needs (Vogus and Sutcliffe 2012, 723). According to Collins (2000, 326-331), organizations support spiritual growth by implementing six policies. First, an organization's mission statement and code of ethics need to appeal to the highest standards of relationships between the organization and each stakeholder (Collins 2000, 327). Second, organizational work needs to be meaningful and joyful, fulfilling each employee's highest version of self (Collins 2000, 328). Third, organizations need to view each employee as a unique entity and strive to incorporate autonomy and self-management in the workplace (Collins 2000, 329). The last three policies to support spiritual growth are embracing workplace diversity, increasing participatory management, and establishing stakeholder governance boards (Collins 2000, 329-331). These policies recognize the interdependent relationships which are inherent in organizations and value the input from each stakeholder in an organization.

Jurkiewicz and Giacalone (2004, 129) define workplace spirituality as a framework of organizational values that facilitate feelings of connectedness and completeness. Their workplace spirituality framework consists of the following values: benevolence, concern for future generations, integrity, justice, interconnectedness, receptivity, respect, responsibility, and trust (Jurkiewicz and Giacalone 2004, 131). As a follow-up on Jurkiewicz and Giacalone's (2004) work, Nooralizad et al. (2011, 14) administered a 102-item spirituality inventory instrument to 400 university faculty members to determine which organizational and individual variables facilitate workplace spirituality. Nooralizad et al. (2011, 15) found the following components to have significant positive effects on workplace spiritual development: intrapersonal, including inner motivation and self-actualization, interpersonal, including relationships and interconnectedness, and supra-personal, including connection to a higher purpose. Furthermore, Karakas (2010, 85-86) defined nine spiritual anchors as the underlying structure of an individual's spiritual needs, attitudes, and motives. These spiritual anchors are perfection, compassion, inspiration, passion, investigation, dedication, appreciation, determination, and cooperation.

While the goal of incorporating spirituality and organizational values may foster workplace spirituality and more holistic organizations, Purser (2019, 102) warns that promoting mindfulness practices in corporations often masks the underlying societal, economic, and organizational problems that affect organizational culture and societal systems. According to Purser (2019, 103), the promotion of mindfulness practices at work may benefit the organization more than the employee by encouraging nonjudgment and compliance. The next section explores the effects of spirituality and mindfulness on organizational culture.

Organizational Culture

Once it is established, organizational culture is difficult to change. Schein (as cited in Fry and Cohen, 2008, 267) defines organizational culture as a pattern of shared assumptions learned by a group as problems are solved. These shared assumptions are then taught to new members. Fostering an organizational culture that incorporates spiritual values is a causal variable in the growth and development of an organization according to Jurkiewicz and Giacalone (2004, 130). When leaders establish an organizational culture of inclusion and personal responsibility with open and honest communication, employees are empowered to raise issues and make decisions. As leaders adopt a mindful, spiritual outlook, they may alter their organization's culture and renew the organization's commitment to the value and dignity of each person. This altered organizational culture may foster the spiritual growth and mindfulness of individual employees, which may result in an improved spiritual environment in the organization.

Symbolic Interactionism

As culture changes, an organization's structure, communication, and arrangement of people changes and vice versa (Jaffee 2001, 16-17). Symbolic interactionism examines how social structure is reshaped and redefined by people who are living their social lives within the context of structurally patterned relationships (Jaffee 2001, 16-17; Tompkins 2005, 361-362). Meaning as conceived in symbolic interactionism is created by the social interaction of people and through their activities and the interpretation of these activities. According to Blumer (1969), symbolic interactionism consists of four central conceptions. The first conception is that people act through their self-reflection and their meanings, which are attached to the objects in their world. The second conception is that people associate with each other through societal roles, interpreting each other's indications, and then acting according to their interpretation. The third conception is that social acts are constructed through a process of interpreting and assessing each situation to imaginatively rehearse different paths to achieve desired results. The last conception is that these social acts are complex, interdependent, and ever-changing because people use their agency to alter their relationships and interactions (Blumer, 1969).

Self-awareness, according to Thakadipuram (2010, 464), is about being fully open to the deeper dimensions of relationships and being aware of our interdependent existence. According to Jurkiewicz and Giacalone (2004, 135-36), as employees experience an increase of interconnection and interdependence, an increase occurs in organizational commitment, job satisfaction, and self-esteem. Ashmos and Duchon (as cited in Karakas 2010, 74) describe the spiritual movement as a major transformation where organizations move from rational systems to incorporating a spiritual dimension that brings in more meaning, purpose, and sense of community. Incorporating mindfulness and a spiritual dimension may also enhance creativity, self-expression, and interconnectedness.

Ouchi's Theory Z

According to Tompkins (2005, 369-372), William Ouchi's Theory Z extends and improves Theory Y management by emphasizing the establishment of an organizational culture built on stable employment, holistic concern, collective responsibility, and collective decision-making. Theory Z encourages organizational leaders to establish concern for all employees by emphasizing the organization's commitment to the basic values of honesty, fairness, and respect for the dignity and worth of everyone (Tompkins 2005, 369-372). Followers pursue individual interests, while assuming collective responsibility for the organization and participating in collective decision-making and goal setting. Building on Schein's concept of organizational culture (Hatch and Cunliffe 2006, 185-188; Tompkins 2005, 369-372), Ouchi's Theory Z places emphasis on the organization's contribution to society, while developing the organization's human potential using symbols, rituals, and stories to acculturate employees (Hatch and Cunliffe 2006, 178-180).

Macro Level Spiritual Development

Macro level spiritual development refers to the potential for spiritual development and mindful leadership to occur in society and the world. This societal spiritual development would be enhanced by the spiritual development and mindful leadership occurring at the micro and meso levels.

Post-Modern Society

Harvey's post-modern society model (1990, 284-307; Jaffee 2001, 237, 282) consists of time-space compression and saturated selves, resulting from increased communication technology. According to Lyotard, Bennington, and Massumi (1984), technology is the root of radical social change, and a power struggle will occur over information in the 21st century (Hatch and Cunliffe 2006, 158). In postmodern society, individuals, organizations, and societies are blending, and boundaries are disappearing (Giddens 1990; Habermas 1996; Turkle 2011). The bounded function and identity of individuals and organizations is eroding, and it is difficult to segregate and develop boundaries around roles and identities (Hatch and Cunliffe 2006; Habermas 1996; Turkle 2011). This blending is due to the great variety of experiences, roles, social relationships, cultures, and perspectives each person is exposed to. Additionally, according to Hatch and Cunliffe (2006), as organizations and society become more complex, communication is strained, requiring greater coordination, integration, and collaboration to achieve unity of effort (Turkle 2011).

According to Giddens (1990) and Turkle (2011), trust is eroding in modern society because people have more trust in abstract systems than each other. People are experiencing a loss of intimacy because personal trust requires a level of self-understanding and self-expression (Giddens 1990; Turkle, 2011). Personal trust has been replaced with impersonal trust in routines and anonymous others (Turkle, 2011). Because there is a need to carry-on with daily modern life, individuals avoid others by viewing engagement as too disturbing, overwhelming, or time-consuming (Giddens 1990; Turkle, 2011).

To reduce this disengagement, membership in a group encourages social exchange (Homans 1958) where members build trust and cohesion through interactions and exchanges. Putnam, Feldstein, and Cohen (2003) see smaller group sizes as encouraging individual responsibility, establishing common ground, and creating the fundamental building blocks to a wider, more connected society. Social capital is higher in smaller settings where listening and trust are established through face-to-face communication, which builds relationships and bonding capital (Putnam et al. 2003). Collective community capital is increased through social anchors that support the development and maintenance of social capital by enhancing the bridging capital between smaller groups and organizations (Clopton and Finch 2011, 73-75).

As organizations and societies experience environmental and structural strains, they will move to more open, collaborative, and improvisational systems (Hatch and Cunliffe 2006, 232-245). Bourdieu's structuralist theory (1981, as cited in Hatch and Cunliffe 2006, 232-245) suggests interplay between social structure and individual agency. According to Giddens (1990), the transformation of intimacy involves the connection of day-to-day life with the global society, the construction of the reflexive self, the formation of relationships, and the concern for self-fulfillment. Through the transformation of intimacy, the increase of interconnection because of technology, and the disappearance of boundaries, post-modern societies seem to be challenged to accept whole individuals into their organizations (Giddens 1990; Hatch and Cunliffe 2006; Turkle 2011). By exploring, understanding, and integrating the complexity and diversity of one's spiritual experiences, the diversity of spiritual values, attitudes, and motives of different people in organizations and societies are potentially enhanced.

Complexity Theory

According to Hatch and Cunliffe (2006, 330-332), complexity theory is the study of how patterns emerge from randomness to form complex dynamic systems, which are unique, adaptable, and always evolving. Just as fractals are small parts of a larger system, where each small part manifests the same complexity as the larger system, the spiritual development and mindfulness of an individual is like the spiritual development and mindfulness of organizations, societies, and the world (Coleman 2016). In complex systems, interactions are nonlinear, where each element responds to information it is receiving, and small changes in one part of the system influence other parts of the system (Coleman 2016; Hatch and Cunliffe 2006, 330-335). Complex systems also are self-organizing, where order emerges out of chaos (Coleman 2016). As individuals pursue their spiritual development and become mindful leaders, they affect spiritual changes on their families, neighborhoods, organizations, and societies. Small spiritual changes in individuals, organizations, and societies have a ripple effect on all other individuals, organizations, and societies in a complex world system

(Coleman 2016; Tolle 2005). Overly complex, decentralized societies need to remain flexible as they negotiate and embrace uncertain and diverse spiritual journeys.

Communicative Action

Furthermore, individuals impact the spiritual development and mindfulness of other individuals through communicative action. According to Habermas (1981), by engaging in conversations during everyday situations, individuals persuade other people to truths and encourage self-determination and rational collective action. Habermas (1981) argues through communicative action based on communicative rationality, in which individuals reflect on themselves and are open to communicative dialogue, debates, and learning from others, a person's lifeworld is reproduced. Habermas (1981) defines a lifeworld as the social environment an individual interacts with and experiences. By sharing in each other's spiritual lifeworld, we amplify the collective spiritual experience and promote cultural transmission and social reproduction.

As individuals and organizations pursue spiritual development and mindful leadership, they will transform the public space. According to Habermas (1996), as the private, individual sphere meets the public, societal sphere, boundaries collapse. To counteract the power elite's control on discourse and to transform the public sphere, Habermas (1996) encourages the debate of issues through rational argument and critical discussion to promote equality and human rights. Grassroots movements allow citizens to form an activist sphere to exert influence over society and to steer society in a more humane direction by empowering the disenfranchised and changing public opinion. As individuals pursue mindful leadership and their personal spiritual development, they will unite with others who are developing spiritually and exert force on society to develop more mindfulness and spirituality.

Mindful Leadership Application and Evolution

In this section, the influence of mindful leadership and spiritual development at the micro, meso, and macro levels is applied to suggest the possible spiritual evolution of individuals, organizations, and societies.

Individual Mindful Leadership

The practice of individual mindful leadership and spiritual development may be illustrated as a model of the human psyche shown in Figure 2 (Dunnavent 2003; Tolle 2005). This model of the human psyche consists of a hollow tube connecting the ego to the higher self. According to Dunnavent (2003), the hollow tube becomes clogged over lifetimes, and work is needed to unclog the tube and access the higher self. The required work involves prayer, meditation, and the daily practice of the following spiritual principles: Be Here Now; Kindness Towards Self, Loved Ones, Neutral Persons, and Enemies; Developing the Attitude of Gratitude; Developing Patience; Acceptance of Self, Others, and What Is; Developing Compassion; Developing the Attitude of Forgiveness; and Developing the Attitude of Love.

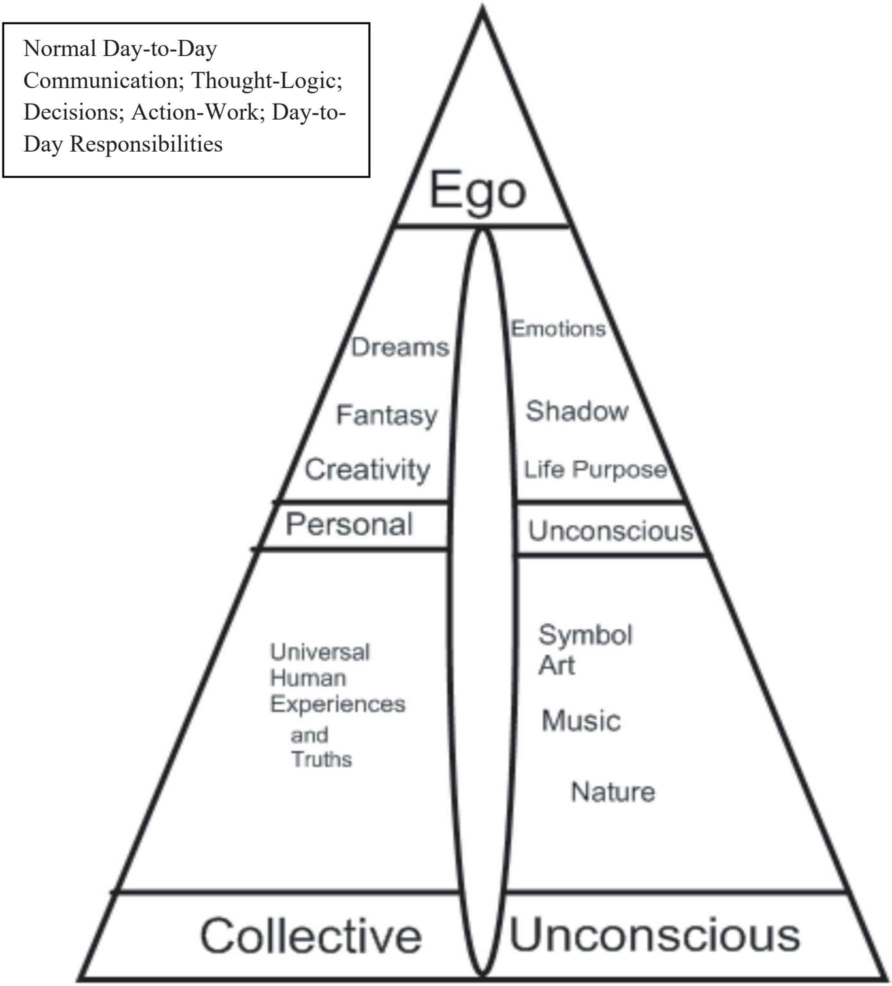


Figure 2. *The Human Psyche*. Based on: Dunnavent, Lois B. 2003. Spiritual Development. Presented at Spiritual Development Workshop, Harrisburg, PA

Additionally, mindful leadership may be fostered by applying attitudinal pillars of mindfulness. The attitudinal pillars of mindfulness consist of developing attitudes of non-judging, patience, beginner's mind, trust, non-striving, acceptance, and letting go (Dunnavent 2003). Through the daily monitoring of thoughts and actions, individuals perform the required steps to progress through their spiritual development work. Furthermore, these spiritual principles and attitudinal pillars are universally accessible to people in all organizations, cultures, religions, and societies (Chopra et al. 2010; Dunnavent 2003; Tolle 2005;). Building on the human psyche model in Figure 2, models of organizational and societal spiritual development and mindful leadership are proposed next.

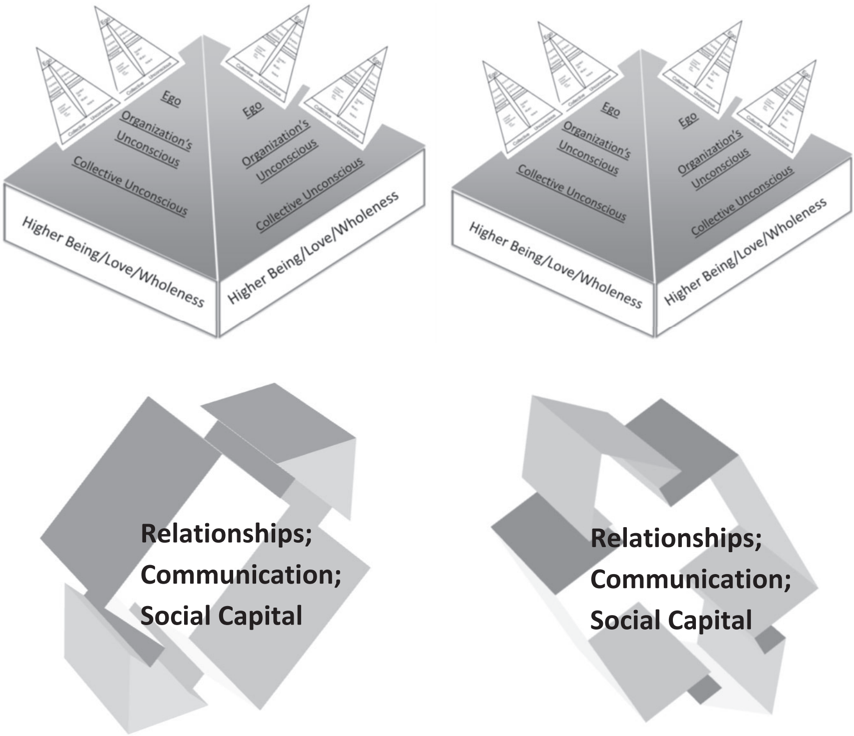
Organizational Mindful Leadership

The model in Figure 3 proposes that an organization has a similar psyche or collective conscience (Durkheim 1893). Just as individuals need to unclog their tubes to access the higher self, organizations need to work to unclog their tubes of access. For example, organizations have egos, which are displayed in concerns of image, daily communication, advertisements, and day-to-day responsibilities (Tolle 2005). Organizations also have a personal unconscious, which consists of everyone's personal unconscious and the synergistic effect of bringing each person's personal unconscious together with the organization's unconscious (Chopra et al. 2010).

An organization's vision, mission statement, purpose, and creative energy all illustrate an organization's personal unconscious. Furthermore, every organization has a shadow self, just as each person has a shadow in their personal unconscious (Chopra et al. 2010; Tolle 2005). An organization's shadow self are the secrets it keeps within the organization and from various components of the organization. Lastly, every organization shares in the collective unconscious of humanity. This collective unconscious includes the symbols, music, art, language, and culture that permeate the organization's world.

Additionally, organizations share our common human history and continue to grapple with human rights issues of equality, justice, unity, and advancement (Tolle 2005). Figure 3 illustrates how organizations are influenced by the individuals comprising the organizational space and how organizations are interconnected through relationships, social capital, and communication within the organization and between organizations. The next section applies the concepts of individual and organizational spiritual development and mindful leadership to societies and the development of mindful leadership throughout the world.

The world is composed of multiple societies, which contain multiple organizations, each composed of individuals. As individuals develop spiritually and work towards uniting with the higher self, they lead their organizations towards wholeness. As organizations move into global, flat, open societal systems, organizations will merge their unconscious with the unconscious of other organizations. The process of sharing in the collective unconscious is occurring at a faster rate through the simultaneous worldwide creation and sharing of culture, music, art, language, and ideas. Through this collective work of developing, connecting, and sharing, the world's societies move towards the higher being and create a whole world system defined by co-creation, co-responsibility, and love.



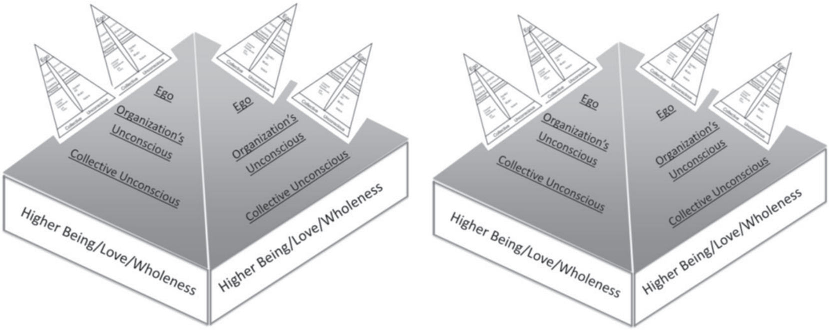


Figure 3. The Psyche of Organizations and Societies. Based on: Chopra, Deepak, Ford, Debbie, and Williamson, Marianne. 2010. *The Shadow Effect: Illuminating the Hidden Power of Your True Self*. New York: HarperCollins; and Tolle, Eckhart. 2005. *A New Earth: Awakening to Your Life's Purpose*. New York: Penguin.

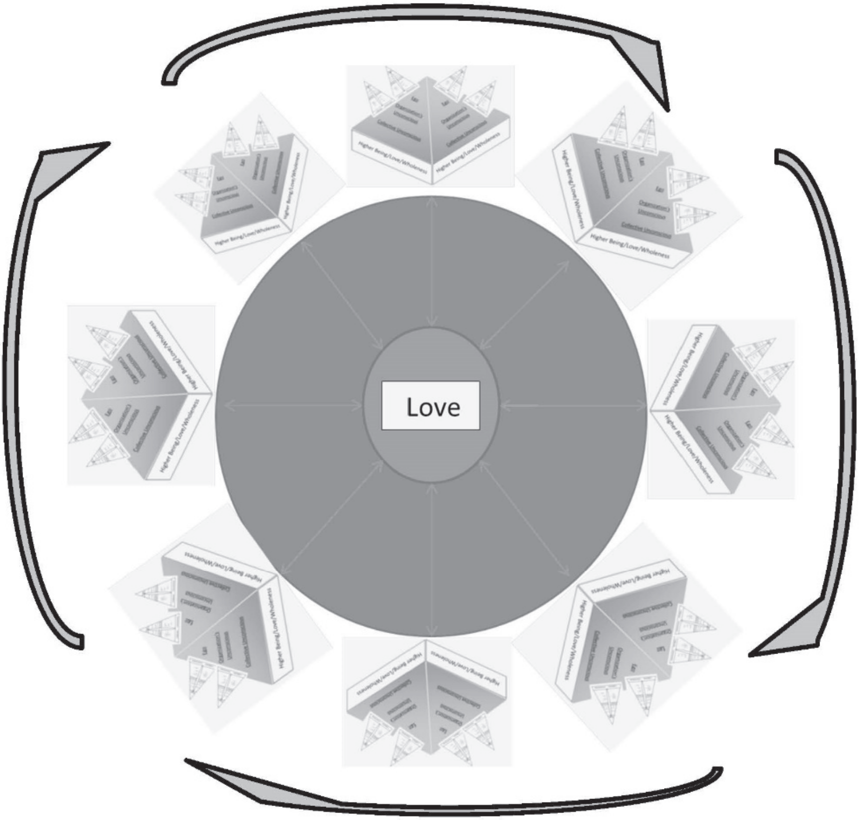
Societal Mindful Leadership

Since societies are composed of organizations and individuals, societies also need to work to connect their egos to the higher self. For example, a society's ego is its surface-level identity, communication, and view of itself in the world. A society's personal unconscious consists of unspoken secrets held by members of the society and the society's shadow self (Tolle 2005). The collective unconscious of a society consists of the art, music, language, culture, and history members of the society share and embrace as common to their society (Dunnavent 2003). Just as individuals often experience existential crisis to begin their spiritual journeys to access the higher self (Thakadipuram 2010, 470-71), organizations and societies also may have to experience crises to move along their spiritual journeys towards the higher self. How organizations and societies respond in times of crisis and how they evolve through the opportunities provided by a crisis may affect their spiritual evolution and mindful leadership development.

Figure 4 proposes a model of mindful leadership employed on a societal basis. In this model, people and organizations foster co-responsibility and mutual respect for universal human rights. There is also simultaneous creation and synthesis of art, culture, and ideas because of instantaneous communication and interconnection of flat, open systems. As individuals, organizations, and societies foster self-awareness and self-actualization, the world will move towards becoming more loving, unified, and whole. This wholeness is critical as the people of the world focus on achieving the 2030 sustainability goals proposed by the United Nations General Assembly in 2015 (UN General Assembly, 2015).

Simultaneous Creation of Culture, Music, Art

Co-Responsibility; Mutual Respect, Human Rights



Self-Awareness and Actualization; Becoming Whole

Instantaneous Communication; Flat, Open Systems; Interconnectedness

Figure 4. A Spiritually Developed World. Based on: Chopra et al., 2010; Dunnavent, 2003; Fry and Cohen, 2008; Hatch and Cunliffe 2006; Rozuel and Kakabadse, 2010; Thakadipuram, 2010; Tolle, 2005

Conclusion

To be whole means to envision the reality of individuals, organizations, society, and nature as interconnected phenomena designed for the purpose of common well-being, progress, and maximum happiness (Thakadipuram 2010, 465). Accentuating mindful leadership, employee well-being, sustainability, and social responsibility maximize the triple bottom line of people, planet, and profit according to Fry and Cohen (2008, 274-75). Through spiritual development and mindful leadership, individuals influence their organizations and societies to develop spiritually (Rozuel and Kakabadse 2010, 426-28).

In post-modern society, complex dynamic systems are increasingly interconnected and co-responsible, where one change has a ripple effect on all the other parts of the system. This increased co-responsibility and mutual respect is crucial to achieve the 2030 sustainability goals proposed by the United Nations, including an end to poverty, a decrease of inequality within and between societies, and an increase in sustainable management of water, land, and resources to reduce the effects of climate change (UN General Assembly, 2015). Figure 4 illustrates a world system of mindful individuals, organizations, and societies moving towards a higher being of wholeness and love. Through the application of mindful leadership, individuals practicing spiritual development and mindfulness will help organizations operate more mindfully and move societies towards a practice of mindful leadership which is necessary to achieve the cooperation required to achieve the 2030 UN Sustainable Development Goals to bring peace and prosperity to all the people of the world (UN General Assembly, 2015).

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NETWORKED LEADERSHIP: THE COMING OF AGE OF A FEMINIST LENS FOR LEADERSHIP DEVELOPMENT

CAROL NEMEROFF
& ELIZABETH FISHER TURESKY

Abstract

In this chapter we focus on the need for more interconnected and shared leadership styles to move effectively into a globalized, rapidly changing, and interconnected future. Such leadership approaches are rooted in characteristics historically associated with the feminine, and involve values and norms explicitly addressed within feminist literature. We review evidence that women are highly effective leaders who improve organizational outcomes and consider possible mechanisms for their impact. We then describe the feminist lens as applied to leadership and map core feminist values onto emerging organizational structures (e.g., networked) and models of leadership (e.g., transformational and distributed). We consider ways in which cultural stereotypes of women, men, and leaders currently block individuals and organizations from achieving their full potential. Finally, we offer recommendations for 'stretching the stereotypes' of both leadership and the feminine so that organizations can respond effectively to emerging trends.

Keywords

Leadership development; gender and leadership; feminist leadership; shared leadership; networked organization; stereotypes.

1.0 Introduction: Current context and trends

As we write this chapter, we are in the midst of a worldwide pandemic that has dramatically changed the way we work. Currently and for the foreseeable future, large swaths of the population are working effectively from home, something that would have been inconceivable a few short months ago. As Kate Lister, president of Global Workplace Analytics (2020) states, “the genie is out of the bottle and it’s not likely to go back in.” This will significantly impact organizational culture and the characteristics of leadership that are required in the future.

This sudden transformation illustrates the convergent culmination of several trends that had been ongoing before the pandemic: *globalization*; an *accelerating pace of change*; and the *interconnectedness of institutions and economics*, as well as the people who embody them. All of these have been identified as disruptive forces expected to “spark the 4th industrial revolution” (Grant Thornton, 2019b).

The primary message of this chapter is that in order to respond effectively to these trends, we must craft a leadership development model that aligns with core aspects of feminist ideology and approaches traditionally considered ‘feminine’ - and, all too often, devalued for that reason.

1. Globalization requires that leaders be able to lead diverse teams that are potentially scattered across the globe. Relationship-building skills and inclusiveness of diverse mindsets and mental models are, and will continue to be, increasingly critical. Relationship-building and acceptance (as a critical element of nurturing) are characteristics historically associated with the feminine gender role, and the ethics of care, equity, and inclusivity are core to the feminist lens.

2. Rapid change requires that leaders be adaptive and resilient. They must not only be able to embrace change themselves but must also be able to support their followers in continually learning and adapting. This in turn requires strong communication skills, high levels of emotional intelligence, and a focus on nurturing the growth (i.e., developing) others – once again, characteristics historically associated with the feminine.

3. Finally, *interconnectedness among institutions* means that the historical model of competition and dominance will no longer work. Instead, the emergent model must recognize that ‘a rising tide raises all ships,’ and focus on collaborative relationships. The psychological research literature on stress describes the familiar, biologically based “fight or flight” response,

in which one prepares to either fight off a threat or flee from it. This response is engaged when individuals jockey for position in a dominance hierarchy. However, some years ago, UCLA psychologist Shelly Taylor documented a striking gender difference in threat responding. Women are more likely to reach out to construct and mobilize support networks, and to engage in nurturing activities which bolster safety and decrease distress. Rather than competing and dominating, they "tend and befriend" (Taylor et al., 2000). Perhaps this differential threat response can help to explain why, according to a growing body of research, things seem to go better when enough women lead.

We begin by reviewing evidence that women are highly effective leaders who improve organizational outcomes and consider some possible mechanisms for their impact. We then describe the feminist lens as applied to leadership. We map core feminist values onto emerging organizational structures (e.g., networked) and models of leadership (e.g., transformational and distributed), before considering the ways in which cultural stereotypes of women, men, and leaders currently block individuals and organizations from achieving their full potential. We conclude with recommendations for revisiting and transforming gender-based expectancies of leaders, so that all can thrive in the organizations of the future.

2.0 Efficacy of Women Leaders

Anecdotal pieces circulating on social media promote the claim that countries led by women have done better in the face of various challenges. In one example, New Zealand's Prime Minister, Jacinda Ardern, is described as not only the first woman and youngest person to hold that position, but also the first to have dealt with a terrorist attack, a volcanic eruption, and a pandemic, all with a baby in her arms, figuratively and literally. (Saptharishi, 2020, May 8). In relation to Covid-19, she is described as having "coaxed her team of five million" into accepting severe restrictions with "straight talk and Mom jokes," leading to highly effective pandemic control (Cave, 2020, May 23). The media explicitly describes her leadership style in terms of gender and motherhood, directly tying both to her success.

Along similar lines, Elizabeth Ralph (2020) considers whether women are better leaders in a pandemic in general. She concludes that, though this question cannot be answered with any certainty, a disproportionate number of countries that have done well at pandemic control were being led by women. Citing the work of psychologist Alice Eagly (Eagly et al., 2003), she opines that women's increased likelihood of taking a collaborative and participative approach, along with skillfully displaying compassion, were likely critical to achieving buy-in for restrictive measures. In stark contrast, the United States federal government administration's response was characterized by displays of competition, and concerns about independence and appearing weak or fearful.

While applications to pandemic leadership are anecdotal, outcomes in business leadership have been more systematically examined. Various studies find that "(gender) inclusive teams make better business decisions" (Cloverpop, 2017) and show increased revenues linked to innovation and diversity. Intriguingly, the improvement in innovation is only significant when a particular threshold proportion of management positions are held by women (e.g., 20% in the case of Lorenzo, et al., 2017). Similarly, in a study spanning 1069 companies across 12 countries, "organizations in the top 25% for gender diversity among executive leadership were likely to outperform on profitability (by 21%) and value creation (by 27%)" (Hunt, V., et al, 2018).

Turban, Wu and Zhang's (2019) report on a study of 1000 top firms spanning 24 industries and 35 countries provides some nuance to these findings. While gender diversity was clearly related to productivity as measured by revenue and market value, this relationship only held when diversity was *valued*, that is, when it was both normative and deemed important. At the national level, regulatory support of diversity (i.e., legal obligation) did not result in the same positive outcomes as cultural support in the form of diversity-valuing norms and attitudes. They suggested three mechanisms through which cultural support for diversity might determine its impact. First, a diverse workforce signals to prospective talent that the work environment will be welcoming. "The most talented individuals go to places that do better with diversity, and this may be what is driving diverse firms in certain contexts to outperform their peers." (Turban, et al., 2019, para. 9). They confirmed that the causal arrow moves from diversity to higher performance, rather than from high performance to attracting better talent, by comparing financial returns before and after organizations added women to the workforce. Higher revenues followed the hiring, rather than the reverse.

Second, they discuss the value of diversity in encouraging creativity and innovation. Citing research by Hewlett et al. (2013), they explain that diverse leaders provide more room for creative thinking, while diverse teams create better products by virtue of being more likely to share the characteristics or experiences of a diverse customer base. But diversity only translates into creativity in an environment of psychological safety – likely explaining why cultural appreciation for diversity is critical for benefits to manifest.

Finally, Turban et al. (2019) speculate that a diverse workforce signals to investors that a company is competently run. “Sociological research on market valuation suggests that investors value when firms use commonly-accepted “best practices,” such as the inclusion of diverse groups in hiring, and they penalize those that break these norms… prior research has even shown a jump in stock prices after firms win an award related to diversity initiatives.” (Para. 16).

Beyond general diversity, the presence of women specifically in corporate leadership positions is associated with higher firm performance. From a global survey of almost 22,000 firms across 91 countries, Noland et al. (2016) report: “The estimated magnitudes of these correlations are not small: For profitable firms, a move from no female leaders to 30 percent representation is associated with a 15 percent increase in the net revenue margin.” (p. 16) Importantly, correlations were predicted by national characteristics that likely signal broad cultural support of women and openness to their success, such as gender income ratio.

Improved outcomes associated with women in leadership positions seem to be at least in part the result of specific aspects of how women do things, which may differ markedly from past leadership norms and practices. Based on data from a study of 161 leaders in the UK spanning private, public, and not-for-profit sectors, Wall & Knights (2013) suggest that women may be “naturally better leaders for the 21st Century” (as cited in Young, G. p.4). The research utilized LeaderShape’s 360° assessment-based executive development tool LEIPA (Leadership and Emotional Intelligence Performance Accelerator). LEIPA includes specific behavioral descriptions related to Goleman’s (2002) Emotional Intelligence (EI) competencies as they relate to a leadership context. Assessors rate how often these behaviors are observed in the target individual, and at what level they are desired, and observed frequencies are compared with desired ones. While gender was not an intended focus of the study, 40% of the sample were women and gendered patterns were striking: women scored higher than men in 15 of the 19 categories, with highest scores on Service Orientation and Developing Others; Change Catalyst; Transparency; Empathy; and Inspirational Leadership. Men scored higher on Self-confidence, Emotional Self-control, and Accurate Self-Assessment. The largest gender difference was on

"Identifies opportunities and stimulates individuals to develop to their full potential." (p.5) Young concludes that "More and more companies now recognise that collaborative, rather than competitive behaviour creates more success… the data show women have all the right attributes including empathy, change catalyst and inspirational leadership." (p.4).

No discussion of gender differences can unfold without consideration of the "nature-nurture debate," which asks whether observed differences are inherent (e.g., biological) or learned through interaction with the social world. The answer is generally acknowledged to be both, in an interactive process (Eagly & Wood, 2013). We will briefly consider biology before returning to discuss societal expectations below.

In a now-classic article, health psychologist Shelley Taylor (2000) first proposed that women's and men's biological threat response systems may be differently structured. The familiar fight-or-flight model of threat response was based mainly on research conducted on males, in both animal and human studies:

> "Prior to 1995, women constituted about 17% of participants in laboratory studies of physiological and neuroendocrine responses to stress… Because females have greater cyclical variation in neuroendocrine responses (due to the reproductive cycle), their data present a confusing and often uninterpretable pattern of results. The fight-or-flight response may also be affected by female cycling, and, as a result, evidence concerning a fight-or-flight response in females has been inconsistent. *However, what if the equivocal nature of the female data is not due solely to neuroendocrine variation but also to the fact that the female stress response is not exclusively, nor even predominantly, fight-or-flight?"* (p. 412)

Taylor observed that "One of the most striking aspects of the human stress response is the tendency to affiliate – that is, to come together in groups to provide and receive joint protection in threatening times" (2006, p. 273). Noting that women show stronger affiliative responses to stress as compared with men, she suggested an alternative "tend and befriend" stress response model built upon caregiving processes and mediated by the bonding hormone oxytocin. Oxytocin decreases biological stress responses in the presence of positive social interactions, and while all genders produce oxytocin, laboratory research shows that estrogen (the "female hormone") enhances its effects (e.g., Tamres, Janicki, & Helgeson, 2002; Taylor, 2000).

To the extent that good leadership involves enhancing the efficacy and development of others and pursuing synergies that rest on a collaborative 'win-win' mindset, a tend-and-befriend approach will clearly be more effective than a win-lose, fight-or-flight based approach. It is impossible to collaborate effectively when engaged in a fight for dominance. And by reducing the biological stress response, affiliation should also moderate the generally overlooked cognitive effects of anxiety, which include narrowed focus of attention, increased threat sensitivity, and decreased creativity.[1]

Importantly, we do not mean to suggest that men are inherently unable to engage in the tend-and-befriend response to stress, nor that women always will; all genders produce both estrogen and oxytocin, and human beings have a near-infinite capacity for behavioral flexibility and learning. Individual differences can also contradict even the most robust gender differences at the population level. Some men may be far more attuned to tend-and-befriend than some women. We will return to these points in our conclusion.

In sum, women leaders appear to have characteristics that can provide leading-edge advantages to organizations of the 21st century. The challenge remains getting them into the positions where they can make a difference, as well as developing and promoting those characteristics in men.

3.0 Toward a feminist, and a feminine, model

Many of the qualities that women leaders bring to organizations, and which demonstrably impact the bottom line, have been discussed as integral elements of the feminist movement and the feminist lens of leadership. Feminist ideology has been unfolding for decades and is complex, but several core elements are clear and consistent. At its heart, feminist leadership is about empowering others – drawing forth 'power from within' (Bookman & Morgan, 1988; Dhiman, S., 2018; Hartsock, 1974; Starhawk, 1982; 2011), in contrast to gaining and maintaining 'power over' others. Bringing about collective power requires attention to relationship building and mentoring, participation and consultation, and inclusion and dignity.

As feminist ideology addresses issues of power and privilege within society, feminist leadership adds an inclusive social justice component to the more traditional leadership lens. Marginalized voices are welcomed into the

[1] See Cuevo et al., 2015; Lighthall et al., 2011; and Sussman et al., 2016, for more on the impact of anxiety and gender relevant hormones on cognition and behavior.

center of conversation, and agendas therefore become transformative (Afkhami et al., 2001; Barton, 2006; Chin, 2007; Sinclair, 2019). Heroic and authoritarian structures are replaced by flattened, democratic, and egalitarian ones in which decision-making is participative. Leadership is implicitly viewed as a collective activity (Kirton & Healy, 2012). The Institute for Women's Leadership (2002) states:

> "[S]ociety has tended to mystify leadership skills as somehow belonging only to a few people who are then seen as better than everybody else. But if we view leadership skills as something that many people have to varying degrees – skills that can be built upon, supported, and enhanced because they are needed in the world, not in order to make one person superior – then we might have a better way of dealing with leadership." (16).

Such a model is presented as liberating for men as well as for women:

> "We see reflected through all the structures and institutions of our world, a system that glorifies domination, control, violence in communication (as in 'you're fired'), competitiveness and greed. Such a value system dehumanizes men as much as it denies women their humanity." (Antrobus, 2002, 46-52).

"Egalitarian feminism" is founded on the concept of sameness of the genders, and focuses on justice, equal rights and opportunities, and identifying prejudices and marginalization of women in patriarchal societies (Grosz, 2005/6). Though a powerful force for change, this approach precludes the possibility of focusing on issues specific to women, including their potentially unique contributions. In contrast, "difference feminism" allows for identification of unique strengths and contributions but suffers from the tendency to generate binary categories in which women fall at one extreme, and men at the other.[2] As Gmür notes,

> "An unfortunate consequence of this essentialist approach is that women are always associated with the inferior characteristic of the binary opposition: women are emotional, not rational, women are impulsive, not goal-directed, etc. Empirical studies suggest that most respondents regard the various

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[2] Feminist discourse also raises the question of whether measured gender differences are the result of nature, nurture, or the interaction between them, generating the critical conceptual distinction between "sex" and "gender." Sex refers to biology, while gender is the result of socialization in the form of early experiences and ongoing social dynamics, including gender role expectations. The terms female and feminine are similarly distinguished.

stereotypical male leadership traits as typical of the behavior of a "good manager" (Gmür, 2006, p. 116).

Consistent with its conceptual foundations, feminist practice has generated a set of distinctive attributes for leadership rooted in increased attention to interconnectedness and collectivity (in contrast to autonomy and independence). A compilation by Charles Knight (online) includes: shared leadership (collectivity and community); strong and trusting relationships accomplished through compassionate communication; influence through transformative inspiration; awareness of power dynamics and recognition of emotions; and the creation of supportive environments for expression, participation, and growth.

In sum, the feminist approach deconstructs the hierarchical model of leadership and presents a distributed – shared and collaborative – alternative model that is particularly well suited to the demands of a globalized, rapidly changing, and increasingly interconnected and decentralized world (Bolden, 2011).

4.0 Mapping Feminist Leadership onto emerging trends

The shift from models of hierarchy to network models has been described as one of the most significant evolutionary shifts of 21st century organizations. The 'network age,' spurred by rapidly evolving digital technologies with their myriad consequences, has brought a growing appreciation that leadership is a shared and multi-dimensional endeavour, rather than the task of a single, highly visible, individual.[3] The global nature of the economy was already evident before the novel coronavirus pandemic, and the pandemic itself launched the extent of our interdependence into the collective consciousness. In the face of large-scale rapid changes, traditional top-down organizations lack resilience because they cannot adapt quickly enough. They must increasingly give way to self-organizing systems of interconnected local nodes, which can independently initiate shifts without delays resulting from distant centralized approval processes. The network model, in which authority rests at the lowest level possible, averts the type of paralysis that can result from a central node being incapacitated. Networks are boundaryless, intersecting, and inherently collaborative.

[3] For an overview of the related constructed of distributed leadership, see Bolden, 2011).

In a network, leadership is first and foremost about promoting conditions that nurture strong connections and flow, such as openness, mutualism, and trust (Hlupic, 2014). One excellent example of such a model is an Appalachian initiative documented by Krebs & Holley (2004), in which collaborative ties were built between isolated and resource-poor communities to address long-term economic revitalization as an effective network. In such a model, the founding 'catalyst' leader works to establish a communication platform and shared goals, and to facilitate the process, but does not exert control or centralize decision-making power over participants. The catalyst takes a diminishing role over time as members or nodes take on more responsibility and egalitarian collaboration between nodes is established.

Such organizations allow for more rapid adaptation because many autonomous components can quickly rearrange themselves to contend with unpredictable challenges, unhampered by centralized information-filtering or permissions. Goals, strategies, and monitoring can evolve and adapt naturalistically. Applying the key principle of power sharing, a leader's role within this organizational structure is to create consensus without controlling, through facilitation, communication, and information-sharing. H&M (Hennes & Mauritz) and Google are two prominent examples of (partially) networked companies.

All of the characteristics of networked organizations are supported, if not optimized, by feminist leadership practices. However feminist leadership is currently discussed primarily within the field of feminist studies rather than in the field of leadership studies; the closest match is transformational leadership (Burns, 1978; Eagly et al., 2003). Transformational leadership emphasizes developing the skills and abilities of individuals, inspiring employee growth and development to reach their full potential and contribute to organizational vision, mission and goals (Bass & Riggio, 2006); this in turn helps organizations reach their full potential. In an environment of rapid change, transformational leaders are able to support their followers in continually learning and adapting. [4] The overlap between transformational leadership and the feminist lens is well captured by Yukl description (2006):

> "Transformational leaders probably do more things that will *empower followers* and make them *less dependent* on the leader, such as delegating

[4] Indeed, in context of networked organizations and transformational and distributed models of leadership, Heifitz has called into question the terminology of leaders versus "followers" (Heifitz, 2020).

> significant authority to individuals or teams, developing follower skills and self-confidence, providing direct access to sensitive information, eliminating unnecessary controls, and *building a strong culture* to support empowerment." (p. 144)

Transformational leadership is closely linked to Emotional intelligence (EI or EQ), a concept developed by Daniel Goleman (1995) based on the work of psychologists John Mayer and Peter Salovey (who were themselves exploring aspects of Howard Gardner's (1999) "multiple intelligences"). Salovey and Mayer found that social and emotional learning predicts success independently of conventional measures of intelligence, describing it as the ability to 'monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions' (1990, p. 433). Goleman synthesized several lines of research in his 1995 book Emotional Intelligence, including the emerging concept of emotion regulation from the field of affective neuroscience. In 1998, he identified specific sub-competencies, and suggested that emotional intelligence was the key ingredient that distinguished truly effective leaders (Goleman, 1998). A robust and still growing research literature supports his conclusion: EI is increasingly described as intrinsic to leadership and an essential ingredient for organizational success.

Eagly et al. (2003) conducted a meta-analysis of 45 studies comparing leadership styles of male and female managers. Consistent with the female gender role stereotype and documented gender differences in EI, they found that female leaders were more transformational than male leaders; the largest difference was on "individualized consideration," a dimension describing awareness of the abilities and aspirations of followers.

EI and transformational leadership are important constructs, but we feel that the feminist lens provides the clearest articulation of the kind of leadership that will benefit organizations in the future. As Grant Thornton (2019b) notes:

> "Not only is the average company lifespan decreasing and economic power shifting to newer cultures, but with the advent of the gig economy even the greatest talent could be anywhere around the world. Organizations will benefit from nurturing a culture and building systems that decentralize control, encourage people to constantly learn, and empower people to take charge and be responsive to changing circumstances." (found in section: Leaders of 2030: Identify, nurture and empower)

5.0 Stretching the Stereotypes

Schein (2001) asserted that, "In today's world, the single most important barrier preventing women from reaching top leadership positions is probably the tenacious, stereotypical association of leadership with being male." (Schein et al., 1996). Nineteen years later, this remains largely true.

A stereotype is defined as an overgeneralized and rigid belief about a group or category of people (Cardwell, 1999). When first studied in the 1970's, stereotypes were construed as beliefs held only by bigoted individuals, but we now understand that they are a natural (though undesirable) outgrowth of the tendency to categorize, which is a fundamental aspect of human thinking. In the words of John Bargh, stereotypes are categories that have gone too far (Paul, 1998). Because the process occurs continuously, automatically, and largely unconsciously, much current research focuses on "implicit bias" (e.g., Banaji & Greenwald, 2013). It can be useful to think of stereotypes as cognitive schemas (templates) that are overly rigid and therefore block accurate perception, even while serving to decrease cognitive effort. The study of gender stereotypes also began in the 1970s, with Sandra Bem's development of the Bem Sex Role Inventory (BSR) (APA, 1977) which described societally prescribed masculine versus feminine gender roles. Subsequent research has focused heavily on the socialization processes by which children learn to conform to expected roles, and the societal penalties directed at those who deviate from them (e.g., Jackson, 2007; Kollmayer et al., 2018). In spite of several decades of controversy and social change, today's gender role stereotypes remain largely unchanged. The masculine is described as agentic, involving dominance/aggression, self-reliance/personal control, and logic/rationality, while the feminine is described as communal, involving interpersonal sensitivity, warmth, and emotionality (e.g., Abele & Wojciszke, 2014; Fiske and Stevens, 1993; Cialdini and Trost, 1998). As overly rigid and simplified cognitive 'schemas' (i.e., templates that direct our expectations, perceptions, and interpretations), stereotypes often contain a seed of truth (Lee, Jussim & McCauley,1995). We saw evidence of this above, in relation to gender differences in emotional intelligence and transformational leadership.

Unfortunately, stereotypes also have negative ramifications, and this explains why the evidence linking transformational leadership with positive outcomes, and women with transformational leadership, have not translated automatically into benefits or opportunities for women within organizations (Werhane & Painter-Moreland, 2011; Reuvers et al. 2008 (from Werhane & Painter-Moreland). Leadership positions stereotypically are perceived as requiring "strong direction, control and agency" (Werhane & Painter-Moreland, p. 449), and leaders are characterized by ambition, aggression, objectivity and self-confidence (Heilman et. al., 1989; Schein, 1973). Thus, stereotypes of femininity are incongruent with stereotypes of being a leader (Eagly and Karau, 2002): to "think leader" is to "think male" (Schein & Davidson, 1993; Schein et. al., 1996).[5] The upshot is that women are left in a "double-bind" in which they cannot simultaneously align their behavior with gender role expectations, and leadership role expectations; whatever their behavior, they are viewed as 'atypical leaders' (Bosak et. al., 2012; Eagly & Karau, 2002; Eagly & Mladinic, 2011; Eagly & Wood, 2013; Koenig et al., 2011). When they act agentic and decisive, they are labeled overly masculine, inauthentic, and unlikeable; when they act in more "feminine" ways, they are seen as incompetent (Eagly et al., 2003, Eagly et al., 1992; Heilman & Okimoto, 2007; Oakley, 2000; see Tinsley, Schneider, & Amanatullah, 2009, for a review). Indeed, a 'feminine' leadership style may be devalued or not recognized as leadership at all. Reuvers et al. (2008, as cited in Painter-Moreland) found that when men display traits of transformational leadership, it has more impact on innovation than when women show these characteristics. And Ibarra & Obodaru (2009) discuss the disconcerting finding that women are perceived to be lacking in "vision" - defined as the ability to determine a strategic direction based on recognition of new opportunities - because they are more likely to focus on facilitating the emergence of shared vision through cooperation, and less likely to take credit for owning a "grand vision." Thus, the very definition of "vision" in leadership is as gendered as the notion of leadership itself. Yet 'vision' reimagined from a feminine perspective aligns much more closely with elements of the networked organization, in which everyone in the organization is encouraged to contribute to its development. [6]

It is important to note that men cannot ignore their prescribed gender role with impunity any more than women can. In fact, by virtue of holding a

[5] The stereotype of leadership is also white in many Western nations, however this is beyond the scope of our current discussion.

[6] In a particularly dismaying twist, when occupations become "feminized," salaries and wages within that occupation have tended to decrease (Psychogios, 2007). The result is that "feminized management" can paradoxically lead to exploitation, rather than new opportunities, for women. Werhane & Painter-Moreland (2011) explain: "One of the central assumptions that have become institutionalized… is the notion that women are society's care-takers. This care-taking takes place primarily as unpaid labor within the private sphere… in the workplace, this manifests in the designation of … 'female jobs,' with a concomitant expectation of it being compensated at a lower level" (p. 449).

higher status by current norms, men arguably have more to lose and therefore backlash against violating their prescribed role can be particularly severe (e.g., Sanborn-Overby & Powlishta, 2020). Clearly it would be beneficial to liberate all genders from stereotypes that constrain and interfere with optimal leadership practices and their recognition and valuation.

Unfortunately, we do not currently know how to effectively change stereotypes. While increasing personal exposure to individuals from a stereotyped group can in some cases alter stereotypes, the opposite can also occur; because stereotypes powerfully direct attention and interpretation, counter-stereotypical behavior may be overlooked, and only stereotype-consistent behavior noticed (Cox et al., 2012; Durrheim, Jacobs & Dixon, 2014). It is safe to assume, however, that one-time interventions are unlikely to result in lasting change, because by their nature, established cognitive structures do not generally change quickly or easily. Rather, we suggest aiming to "stretch" existing stereotypes to be more flexible and better aligned with reality.

Pioneer developmental psychologist Jean Piaget described cognitive development as a process of forming, applying, and adapting cognitive "schemas" over time. A schema is a template or blueprint that directs our expectations, perceptions, and interpretations. Schemas are formed early in life but continue to adapt throughout the lifespan in an iterative process of "assimilation" and "accommodation." In assimilation, newly acquired information is located in the existing mental structures (schemas). However, as novel experiences and information accumulate, existing schemas must eventually stretch - "accommodate" - to the new material. As Kolb (1984) described in his model of learning styles, we are all capable of continuous learning to reshape and adapt our mental models to align with current reality. Admittedly some people's mental structures are more rigid than others and some will find challenges to their familiar assumptions more threatening than others. But through a 'spiral approach,' in which learning is introduced and repeatedly revisited at ever-deepening levels over time, even the most rigid of mindsets can be stretched. As we have seen, ample evidence shows that effective leadership is far more "feminine" than currently acknowledged, and to the extent that a threshold proportion of women is eventually reached in leadership positions, what is expected and perceived as "normal" should transform. Also, in spite of ongoing backlash and resistance, the cultural discourse around gender continues to evolve.[7]

6.0 A crucial caveat, and a roadmap for the future

We are aware that many readers may have been experiencing reactance in the face of our claim that women may make better leaders than men. It is time to repeat, *with emphasis,* that this is not, in fact, our take-home message. The 'feminine' and feminist ways of knowing and leading that we have described are not limited to women, nor are they guaranteed by virtue of being a woman. While there is undoubtedly some biological basis for the strength of one's urges toward 'fight or flight' or 'tend and befriend,' people of all genders produce all of the relevant hormones, and biological gender is only a loose predictor of most behaviors and attitudes.[8]

In other words, this is not a magical talent inherently linked to biological gender; it is a mindset. Many men embody these traits, and many women do not. As such, it is trainable/teachable. The challenge for the future of leadership is to design leadership development models that teach these skills and characteristics to those of all genders. Narayandas & Modoveanu (2019) argue that traditional MBA and executive training programs are facing a crisis, in that their content is increasingly misaligned with the types of challenges executives need to be able to handle now and in the future. They urge less focus on discipline-based skills training, and more on relational, communication, and affective skills.[9] As Young, G. (2016) puts it:

> "Business leaders who will be successful will be those who can ride the wave of this increasingly changing world, harnessing the benefits of globalisation, technology and new societal attitudes to ethics and fairness. They will embrace collaborative relationships and be prepared to be radical in their thinking to build organisations that are fleet of foot and thrive on

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[7] See Cornelia Illie, 2017, for more on cultural discourse around gender.
[8] Even robust gender differences measured at the population level cannot predict the behavior of a particular individual in a particular circumstance: focusing on "average" differences between the genders obscures the fact that there is tremendous overlap between them in the distribution of scores on virtually every behavioral measure, including biologically-based ones.
[9] We are currently developing a conceptual framework for developing leadership capabilities consistent with ~~the~~ both the feminist lens and women's ways of leading, the Women's Integrative Leadership Development (WILD) model (Turesky & Nemeroff, in progress).

uncertainty and ambiguity. These leaders will operate beyond their ego, continuing personal development and learning." (Young, G. p. 3).

The foundation of inclusivity is to acknowledge the strengths and contributions of diverse individuals. In the spirit of both inclusivity and common sense, we note that empowering the feminine in leadership development should not involve exclusion of the masculine. Traditional models of strength and leadership are important and useful for certain tasks and in certain contexts. We believe that the leaders of the future must develop a complete and balanced toolkit if they are to successfully meet the challenges they will face.

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The Need for an Epistemological and Cultural Turn in Leadership Studies: From a Eurocentric and Monocultural Conceptualization towards a Global and Intercultural Approach

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Abstract

The current COVID-19 crisis is a warning of what possibly is coming in the future: new pandemics, environmental degradation, more climate change's effects, and other challenges related to an unsustainable Western model of development. Since these different issues have global effects and go beyond national borders, they cannot be solved with mainstream leadership approaches from the past that emphasize unilateralism, individualism, competition, and power accumulation in a few hands. What is needed is a more collective approach that distributes power more equitably and fosters multilateralism and cooperation. However, a collective and horizontal perspective will not be enough since the causes of these pandemics and climate change are rooted in an idea of Western development and a relationship of domination with nature that is not sustainable. Therefore, the solution is a leadership approach that goes beyond Western epistemology, culture, and ideology of development, which in general combines epistemologies and cultures from all around the world, and in particular from traditional communities that have proved for centuries that their relationship of respect for nature is more sustainable for the future generations.

Keywords

Global leadership; Development; Indigenous communities; Intercultural dialogue

Introduction

As Jim Robbins warned in 2012 in an article for The New York Times with the title 'The ecology of disease,' "most epidemics — AIDS, Ebola, West Nile, SARS, Lyme disease and hundreds more that have occurred over the last several decades — do not just happen. They are a result of things people do to nature" (New York Times, July 14th, 2012). Diseases from remote forests and wildlife infecting human populations have been a constant throughout history, but because of increasing human intrusion in new natural and not contacted areas, emerging diseases have quadrupled in the last half-century (Robbins, 2012).

As a result of this dramatic increase in diseases in the last decades, the United States Agency for International Development (USAID) launched in 2009 'The Predict Project,' which was in charge of researching the 'ecology of the disease' or, in others words, studied where next diseases were likely to emerge based on how people altered the landscape. According to Robbins (2012), this project was "studying ways of managing forests, wildlife and livestock to prevent diseases from leaving the woods and becoming the next pandemic." However, the Predict Project was dismantled by the Trump administration, and, coincidentally or not, COVID-19 is an example of the ecology of disease that, combined with the globalization of transports and trade, has reached global dimensions.

When it comes to leadership, world leaders have responded to the crisis in different ways. Although some leaders have suggested international cooperation and global solidarity to face the pandemic, most of the international leaders, like Trump and his administration in the United States (US), decided to take a unilateral approach blaming other countries and refusing to cooperate for creating a vaccine to be the first country in developing a cure and get economic profit from the pandemic. Even regional entities like the European Union showed a lack of solidarity when northern European countries blamed Italy and Spain for being inefficient in controlling the virus and blockaded the creation of Euro-bonus to improve the economies of Southern Europe's countries. When a global and multilateral reaction was more needed than ever, the framework of 'nation-states' and unilateralism has prevailed to respond to this global and interconnected crisis.

Thus, in the light of foreseeable future challenges related to more pandemics like the COVID-19 or the climate change that need global and multilateral actions, the question that arises is if the conceptualizations of leadership from the past and the present are suited to deal with these future scenarios and, if not, what are their limitations? Also, a critical question that we need to ask is, if leadership theories from the past and present are limited to deal with future global challenges of pandemics and climate change, what will the leadership of the future that can cope with these challenges of environmental degradation look like?

As we know it today, the leadership field emerged with the oil embargos and price hikes of 1973 that obliterated the economic equation underpinning their thriving economies and burgeoning welfare states. Back in the past, the mainstream approach was the managerial style that had been successful in the US during the beginning of the twentieth century and was legitimized with the victory in World War II (Spoelstra, 2018). However, due to the oil crisis, the management narrative of control, planning, and organization was modified and substituted by a new leadership discourse centered on vision and change.

Like then, after the COVID-19 crisis, the world cannot go back to normal and needs to be adjusted to a 'new' normal because part of the problem was created by the way we were living and exploiting nature. Like the crisis in 1973 that changed the narrative from management to leadership, today's pandemic might be the kind of disruptive force that triggers a reset in our ways of thinking about leadership, leaders, and leadership practices.

As the COVID-19 crisis and the climate change issues show, we live in a more interconnected and interdependent world where challenges are global. Therefore, leadership answers and actions need to be global and focused on cooperation. This is why it is compulsory to review the current leadership paradigms based on Western ideas of individualistic, charismatic, and transformational approaches where power is concentrated in a leader or just a few chosen ones. Thus, it is urgent to build more global and collective views with distributed power to address today's main societal challenges. However, just a more multilateral and power distributed approach will not be enough to solve the main challenges related to environmental degradation if we do not think about changing our model of development and relation with the planet based on the exploitation of natural resources. In essence, it is critical to complement Western epistemologies that have shown their limitations and failures in terms of economic development, embracing the complexity of other epistemological views when we need it most to save the planet.

For example, traditional communities in general and Indigenous people worldwide have been the guardians of the diversity of the Earth for centuries. Traditional communities question the dominant concept of development and propose a move towards a concept of harmonious nature and culture, mediated by relations of reciprocity, social equity, and respect that permits the establishment and guarantee of active participation of citizens in economic, social, and political decisions (Jimenez Luque 2008).

Indigenous peoples view development as a balance and harmony between nature and the beings that surround it. To speak of development is to do everything necessary for the 'Good Living' and 'Well Being,' but in the context of respect for others, because according to their ancestral worldview, development can only be achieved when people feel happy and fulfilled in their environment (Jimenez Luque 2008).

A new articulation of a global and intercultural leadership approach implies an epistemological and cultural turn that will create a new collective conceptualization of leadership. Also, it represents a new relationship with the planet, a new way of making sense and meaning of the Earth that will imagine it as a global home and nature as our original mother who deserves love and respect rather than an object to be dominated and exploited. We do not own the Earth. We belong to the Earth.

In what follows, I will offer an overview of mainstream perspectives of leadership from the past and then describe critical approaches from the present. Moreover, I will briefly describe the limitations of those conceptualizations of leadership to address some of the leading environmental challenges that our planet is currently facing and present some perspectives of leadership and development of Indigenous people. Finally, I will suggest a global and intercultural perspective of leadership that results in an epistemological and cultural turn of leadership as the best-suited approach to address the world's main challenges.

Eurocentric and Monocultural Conceptualizations from the Past

To better understand the conceptualization of what leadership means and what leadership is for, it is central to look at the positionality of the scholars who have been theorizing about this phenomenon for the last decades. It is also critical to see who have been the subjects theorized about and what counts for leadership to realize, in an indirect way, who have been the subjects made invisible and excluded from leadership.

As we saw above, the origin of leadership comes from the US and the managerial world and will transition to American corporations by the 70s. We find mainstream research conducted about positional leaders in those industries who are essentially white heterosexual upper-middle-class men. Leadership has been typically defined by these leaders' traits, qualities, and behaviors, and more recently by relations of power and influence and the importance of context.

The first trend of leadership studies was to identify which internal qualities great leaders had, intending to recognize them in future leaders (Bernard, 1926). The focus of the research was on personality and physical and mental characteristics. For example, one emphasis has been that leadership is 'reserved' to only a few privileged individuals who possess a set of innate traits that cannot be developed (Galton, 1869). Thus, trait leadership is understood as patterns of personal characteristics that make leaders consistently effective across different groups and organizations (Zaccaro, Kemp, and, Bader 2004).

A second significant approach was to study what great leaders do in an attempt to train their behavior. Although Stogdill (1948) and Mann (1959) found similar traits across several studies they undertook, there was evidence suggesting that leaders in one situation may not necessarily be leaders in another. Thus, the emphasis of leadership studies shifted away from leaders' traits to behaviors, and new research on behavior came up, such as Blake and Mouton's (1964) recognized model of five different leadership styles, centered on the concern that leaders have for people and for achieving their purposes. As a result of the behavioral approach, the idea of 'the leader born' was substituted by 'the leader can be made,' which contributed to developing leadership methods to teach employees in different organizations how to learn to be a great leader (Saal and Knight, 1988).

A third approach that emerged was the research interested not only in traits, qualities, and behaviors of the leaders but also in theories of power and influence that considered "leadership in terms of the source and amount of power available to leaders and how leaders exercise that power over followers through either unilateral or reciprocal interactions" (Bensimon, Birnbaum and Neuman, 1989, 7). From here, additional leadership theories have emerged, such as transactional leadership, which uses the position of power of the leader to get followers to accomplish tasks (Burns, 1978; Bass, 1985), or transformational theories, which are focused on motivating followers by satisfying their needs and engaging them in the processes of work (Burns, 1978; Bass, 1985).

A fourth leadership approach focuses on how the situation, the context, the task, and environment could affect the leader's decision. Situational and contingency theories state that what leaders do depends upon characteristics of the particular situation and context within which they act (Hemphill, 1949). Thus, leadership scholars started to consider the possibility that leadership could be different according to every situation (Saal and Knight, 1988), which paved the way for more realistic and complex views of the phenomenon of leadership that started to go beyond the figure of the leader and the follower.

With a broader perspective of studying leadership, culture came later to the equation with cultural and symbolic approaches. Thus, if leaders want to be effective, they need to understand their organizations' culture and, in particular, how culture evolves and changes to adapt to external factors (Schein, 2010). According to Schein (2010), "Culture is both a 'here and now' dynamic phenomenon and a coercive background structure that influences us in multiple ways. Culture is constantly reenacted and created by our interactions with others and shaped by our own behavior" (p. 3).

In conclusion, and regardless of acknowledging culture and context more recently, mainstream approaches of leadership taught at Businesses Schools and leadership trainings for corporations keep reproducing the individualistic and leader-centered perspective that today is still very dominant in the field. Moreover, the contexts where the research has been conducted were corporations and business organizations, and the participants have been positional leaders at the top of the hierarchy. As a result of this approach, more collective and relational ideas of understanding the phenomenon of leadership have been neglected, and even worse, subjects of leadership who do not belong to the corporations and business world and who do not occupy formal positions of power have been made invisible as leaders and actors involved in leadership processes.

Critical Perspectives of the Present

As we have seen, leadership theories from the past are very leader-centered and, although including the relation with the follower and the context, the relationship is very hierarchical, and there is a narrative that implies that the leader's accumulation of power will result in overcoming any obstacle that the follower, the context, or the environment can produce. It is a heroic-centered perspective based on the paradigm of charismatic and transformational leaders implemented after the oil crisis in 1973 (Spoesltra, 2019), which embeds leaders with ‘magic powers’ to decide what to do regardless of the followers and the context. Notwithstanding, this magical view of the leaders can have a dark side and negative consequences since leaders accumulate too much power resulting in unethical actions and decisions (Tourish, 2013). As a consequence of a field that was focused on leaders regardless of followers; that did not acknowledge enough the context and how the context influences leaders and followers, and; that legitimized that leaders accumulate power without considering that followers have agency and are involved in processes of resistance, a group of scholars decided to study leadership from a critical perspective. These group of critical scholars started by problematizing the dualism that establishes a differentiation between leaders and followers concentrating the power in the leaders and neglecting that leadership is a relational process.

According to Harter (2006), when it comes to leadership studies, “dualisms pop up everywhere” (p. 90). Thus, we have dualisms such as: leadership/management; leaders/followers; self/contexts; born/made leaders; task/people orientation; transactional/transformational; organic/mechanistic; or autocratic/participative, to name a few examples. Dualism is not exclusive of leadership studies since it is very connected with Modernity and its frame for reason and practice, based on the opposition in general and dichotomy in particular. For example, social theory is embedded with binaries between subject and object, individual and society, or action and structure (Collinson 2014), same as organizational theory and dualisms such as centralized and decentralized, differentiation and integration, formal and informal, or change and stability (Dale, 2001).

Critical Leadership Studies (CLS) denounces that this dualist view is prevalent in mainstream leadership research when it comes to traits, styles, contingency theories, path-goal, charisma, and so on, “where leaders’ personas and practices have tended to be privileged and psychological perspectives and positivist methodologies predominate” (Collinson 2014, 39). However, a dualist leadership perspective can have very negative effects on the leadership field because dualism tends to over-simplify “the complex, interconnected, and shifting relationships that characterize leadership dynamics. It emphasizes differences by making excessive separations between distinctions and treating these as immutable polarities” (Collinson 2014, 39). Moreover, from a critical perspective, dualism also contributes to increasing asymmetries of power when privileging, marginalizing, and excluding and as a consequence, “important issues, particularly around power, ambiguity, tension, paradox, and contradiction tend to disappear from view" (Collison 2014, 39).

CLS is a growing area of research that views power as the key to leadership dynamics (Alvesson and Spicer 2012). Critical perspectives "focus on the situated power relations and identity dynamics through which leadership discursive practices are socially constructed, frequently rationalized, sometimes resisted, and occasionally transformed" (Collinson 2014, 37). Moreover, CLS also recognizes that, besides positional leaders in positions of formal authority, leaders can emerge informally in subordinated positions and oppositional organizations (Knowles 2007) or revolutionary social movements (Rejai, 1979). However, the key question that we should ask is: are critical leadership studies critical enough? Besides being a more multilateral and distributed approach to leadership, are critical leadership studies global and intercultural enough to go beyond a Western canon and epistemology?

CLS offers an approach to understanding the phenomenon of leadership more holistically and comprehensively in terms of overcoming dualisms, embracing complexity, and acknowledging relations of power within leadership processes. This critical perspective is more helpful than mainstream leadership approaches from the past to deal with the current challenges that the world is facing and require more multilateral and collective perspectives to deal with globally interconnected and interdependent issues. However, and although within the area of critical studies, the number of scholars from non-Western regions is growing, there is a need for making more visible the work of scholars and practitioners of leadership from the Global South in general, and above all, research and practice thought from epistemologies that go beyond the Western canon.

The Need for Complementing a Limited Western Epistemology and Culture

There is consensus on the view that each culture does something called leadership (Drath, 2001). However, each culture understands leadership differently. Then, it follows that any current leadership theory originating from a single cultural perspective cannot achieve cross-cultural applicability unless it considers the multiple ways of making sense of leadership. Put differently, it is not enough to include other leadership approaches such as Indigenous, Latino/a, African-American, and so on if such theories are not placed at the level of existing mainstream theories. As Santos (2016) argues

> What cannot be said, or said clearly, in one language or culture may be said, and said clearly, in another language or culture. Acknowledging other kinds of knowledge and other partners in the conversation for other kinds of conversation opens the field for infinite discursive and nondiscursive exchanges with unfathomable codifications and horizontalities (p. 15).

Besides a critical and leadership approach, what is needed is a broader perspective of leadership regarding epistemologies and cultures. A broader approach that should avoid viewing non-Western epistemologies as myths and non-Western cultures as folklore. Rather, other epistemological projects and cultures should be viewed as valid ways of leading and organizing economic, political, social projects that go beyond those proposed by a predominately Western worldview.

When it comes to going beyond the Western canon, one of the critical topics is the dominant economic model of development based on growth, production, exploitation without limits of natural resources, and the never-ending consumption of commodities. As we saw before, this model of development is causing pandemics like the COVID-19 and the climate change that is already destroying much of the diversity on the planet and, in a few decades, will create millions of climate refugees all around the world (UN University, 2015). Moreover, other severe environmental problems also exist, such as air and water pollution with industrial waste; the oceans filled with large floating waste islands comprised of light bulbs, bottles, toothbrushes, etc. composing a rubbish patch estimated to be twice the size of Texas; the drinking water for millions of people contaminated with pesticides, nitrates and other pollutants from industrialized agriculture; or the destruction of the biodiversity of forests through indiscriminate logging to plant forests of palms to make palm oil for the production of biofuels (Jimenez Luque 2008).

Therefore, since Western leadership and model of development have created these challenges, what is needed is a different logic of thinking. A different logic of thinking and knowing that goes beyond Western approaches of leadership and epistemologies and that already exists. This is the case of the worldview of traditional communities in general and Indigenous communities in particular.

Indigenous People, Leadership, and Development

As Warner and Grint (2006) point out, “indigenous leadership styles encompassed a continuum of styles that defy any simple reduction” (p. 232).

Notwithstanding, according to the American Indian Research and Policy Institute (2005), there is enough information available to list the essential and important elements: a belief in connectedness, a commitment to spirituality, and respect for all forms of life. Moreover, as Blume (2020) argues, "an Indigenous model of leadership would have a broad vision of responsibility, altering the goals of competition from self-advancement to advancement of the whole, serving to reduce conflict and enhance cooperation and inclusion, and providing the foundation to overcome the intergenerational inequities and global challenges we face together" (International Leadership Association Newsletter, May Issue 2020).

In terms of the relationship of Indigenous peoples with nature, this leadership conceptualization is translated in a concept of harmonious nature and culture, mediated by relations of reciprocity, social equity, and respect that permit the establishment and guarantee of full, active participation of citizens in economic, social, and political decisions. Today, Indigenous organizations, social movements, and rural inhabitants all around the world are laying the groundwork for a new society in which they are recreating community settings and new forms of production relations, which mark a milestone in the social construction the new era demands and where women play a central role. In short, they propose a radical change in the production and consumption model: we must change the system and not the climate (International Labour Organization, 2017).

For Indigenous peoples, development involves a balance and harmony between nature and the beings that surround it. To speak of development is to do everything necessary for the 'Good Living' and 'Well Being,' but in the context of respect for others, because from their ancestral worldview, development can only be achieved when people feel happy in their environment (Gudynas 2011). Indigenous peoples are based on the principle of integration as a guarantor of life, so nothing is disconnected; it is a balanced fabric that harmonizes life in its entirety. If something breaks, an imbalance is created, and then life is put at risk.

By development, traditional and Indigenous communities understand a way of learning to walk with everyone else within a framework of mutual respect. It also implies that technological production and development are sustained with respect for Mother Earth, for the sacred, for the river, for all living things, for the first inhabitants of these lands, for ourselves (Jimenez Luque 2008). It is about respect for traditions and cultural identity. This proposed development needs tolerance, justice, equality, solidarity, and rulers' responsibilities and the ruled to make the best decisions for the common good.

For centuries, traditional and Indigenous communities have shown more collective and holistic perspectives of understanding leadership that complement the approach of CLS. This approach has been able to keep the world's biodiversity and the balance in the different ecosystems where they live, which the Western model of development has failed to protect. Thus, a combination of CLS with the conceptualization of leadership by traditional and Indigenous communities and including epistemologies beyond the Western canon would result in an alternative perspective of leadership. This alternative approach of understanding leadership will be a global and intercultural leadership more suited to address the environmental challenges that we are currently facing and unfolding a process of sense and meaning-making that will result in new conceptualizations of leadership and a new relation of respect with the planet.

Global and Intercultural Leadership Approaches for the Future

Leadership in the twenty-first century will need to address constant change, complexity, and interdependence, and leaders will need to be flexible and critical, learn collective leadership styles, and understand different epistemological perspectives to enrich their view of the world. As Chin and Trimble (2015) argue, "while this is new in many Western countries, it has been noted to be Indigenous in many 'developing countries' or non-Western countries" (p. 17).

In essence, individualistic, leader-centered, and power-accumulated mainstream approaches from the US are not suited to deal with the new challenges that the world is facing. Moreover, CLS, although proposing more collective, multilateral, and holistic perspectives that take into account the complexity of the world and power relations, is still mostly centered in Eurocentric views of the world and a Western epistemology. Thus, a new articulation of a global and intercultural leadership approach is needed that implies an epistemological and cultural turn that will result in a new collective conceptualization of what leadership means and what leadership is for. In general, a new conceptualization of leadership that goes beyond the Western canon, and in particular, a process of making sense and meaning of what the Earth represents for us as human beings that will imagine the planet as a global home and our original mother who deserves love and respect rather than an object to be dominated and exploited. We belong to the Earth, and future generations own it and not us.

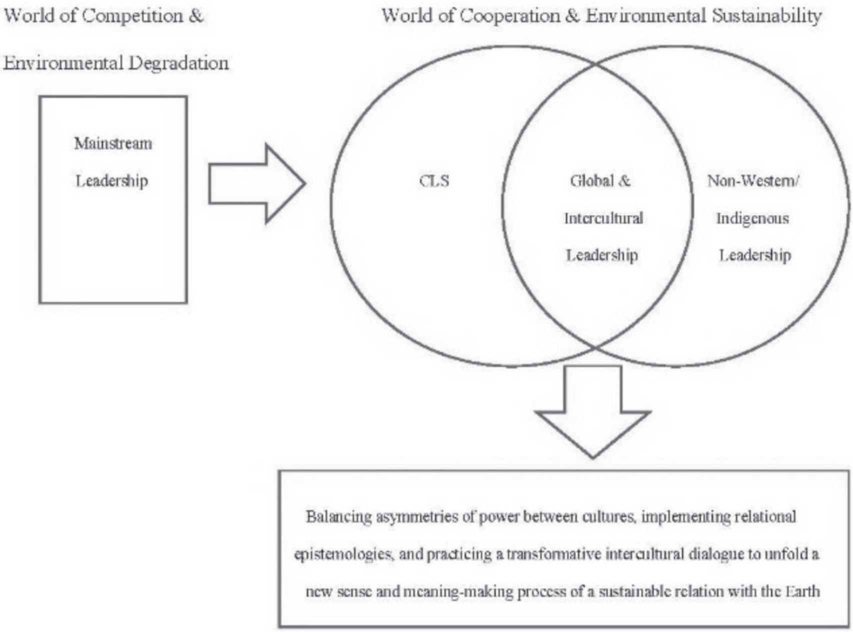

Figure 1. From a Eurocentric and Monocultural Conceptualization of Leadership Towards a Global and Intercultural Approach for Environmental Sustainability

A global and intercultural approach combines CLS with other epistemologies and is characterized by an awareness of an interconnected and interdependent world; emphasizes on relationships and values other epistemologies and cultures; acknowledges asymmetries of power when it comes to cultures and epistemological perspectives; facilitates spaces to include the conceptualizations and leadership approaches of different worldviews and ways of being and; puts the focus on intercultural dialogue and communication that transforms the world. It is a leadership process that is better suited to navigate within Globalization because it has a holistic perspective of a fluid world that is relational and constantly in movement. A global and intercultural leadership process also understands the complexity and ambiguity of human relationships in general, particularly related to different cultures, knowledge, and meanings. Finally, this leadership approach unfolds a process of sense-making regarding our relationship with the Earth that goes from seeing the planet as a resource to be exploited without connection with human beings to a conceptualization of the Earth as our mother who needs to be respected and preserved for the future generations (see Figure 1).

Leadership takes place between people's relationships with other peoples and with institutions (Barker 2001), and to make sense and meaning of a complex and uncertain world, emerges in the transaction between leaders and followers to create frameworks seeking for social stability on the one side, and leaders and followers with the structures and institutions they create looking for sustainability on the other. Therefore, meaning and sense-making are essential in the process of leadership. Additionally, when analyzing leadership as a process to build and change the collective conceptualization of leadership and our relationship with the planet in a more global and intercultural way, it is important to focus on leaders and followers because both have agency and certain influence at giving some 'order,' 'redirection,' or 'stabilization' to the process. However, it is also central to consider how leadership unfolds considering the different elements that, although they can be influenced and shaped by leaders and followers, they also influence them. Thus, a global and intercultural approach of leadership that includes holistic perspectives of understanding reality and relational epistemologies will be better suited to capture the complexity and nuances that the phenomenon of leadership requires in a more interconnected and interdependent world to address the most important challenges that our global societies are facing.

The COVID-19 is an outstanding opportunity to implement a global and intercultural process of leadership and a sustainable development model that goes beyond the Western canon and includes other epistemologies and cultures. Thus, this chapter sheds a spark of light on a complex issue such as leadership for the future challenges of pandemics and climate change, illuminating a holistic process of leadership based on CLS and cultures and epistemologies that go beyond the Western canon and have a more sustainable relationship with the planet. This global and intercultural approach of leadership will facilitate the design of a pluriversal world better suited to face the new challenges that the Earth is facing and the new ones that are coming. The endeavor is immense, and we have already started running out of time. Notwithstanding, it is our duty with the future generations to come who, if we did not change our ways of conceptualizing leadership and making a new sense and meaning of our relationship with the Earth, will not have a planet where they could live.

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Discerning the Past to Lead the Future: Social Justice as a Roadmap for Leading Higher Education Change and Transformation

Shelbee Nguyen Voges

Abstract

Achieving greater inclusivity, diversity, and equity across colleges and universities is a central challenge of 21st century education. Our unprecedented times of social unrest and global turmoil, in the context of COVID-19, suggest the call for transformations in leadership and our own thinking is now. The new leadership mandate and focus of this chapter will first introduce the nature of change in 21st century education, before tracing the inherent problem and its historical context. Further, we will discuss how social justice and the contemporary social movement, Black Lives Matter, serve to drive these transformations synthesizing across topics of history, 21st century learning, and their relationship to adult learning theory and student success. Finally, new thinking is invited by integrating the relevance of 21st century learning with considerations about authentic transformative leadership to realize and inspire higher education change. A summary and the implications of the aforementioned are offered as a guide to inform discourse regarding policy, practice, and the triangulation of critical reflection, narrative, and experience.

Keywords

Social justice; 21st century education; diversity; inclusion; equity; COVID-19; transformative learning; narrative; critical reflection; belonging; mindset matters

1.0 Introduction

Institutions of higher learning have historically been looked to as emancipatory spaces aimed at the liberation of thought and opportunity through learning and unlearning of educative concepts. In the 21st century, we are tasked with revisiting this notion and reconciling the growing disparity between the contemporary needs of learners and the capacity of higher education systems and leaders therein to meet these ever-evolving needs in a time of palpable cultural, political, economic, and social unrest. Growing uncertainty of the COVID-19 pandemic as well as dissent, and further, distrust of American colleges and universities to prepare students for living and working in the new normal has reignited a critical discussion of power, inequity, and college completion.

In tracing the path from where we have been historically in higher education to where we have yet to go, we discover much remains the same when it comes to realizing a more socially just roadmap of higher education achievement and completion. Massive technological exigence and the disruptive nature of economic, cultural, social, and political turmoil across every domain of human life further provide warrant for transformations in historical higher education structures, leadership, and their corresponding learning objectives. Now more than ever, perspective transformations from both leaders and learners in higher education must be well poised and well prepared to authentically meet personal and professional 21st century learning mandates.

2.0 The problem

2020 is, no doubt, to be a year marked in history by human crisis. UNESCO estimates that this year "saw the largest education disruption in history which forced, at its peak, nearly 1.6 billion students out of their classrooms in more than 190 countries" (UNESCO 2021, 1). The wider global snapshot of higher education enrollment at the start of the 21st century reflects student enrollment doubling between 2000 and 2014, yet graduation rates remained fairly unchanged with only 40-50% learners completing degrees (UNESCO 2015). The US is no exception, and even in the time before COVID-19, only about 50% of students were completing two- and four-year degrees on time (Complete College America [CCA] 2019).

The most pressing problems, according to UNESCO 2019, are the broader, historical, and fundamentally defining inequities shaping higher education systems. The contemporary education outlook is framed dimly and "a defining characteristic of most higher education systems are the large disparities in access and completion, especially by income and wealth…" including race/ethnicity and gender (UN 2019, 1). Further, in "*Education During COVID-19 and Beyond*" the authors assert wide pre-existing achievement, funding, and access to technology gaps. These issues coupled with educational systems that were ill-prepared to meet these challenges in the first place, are predictably made worse in the time of COVID-19 (Burkholder and Holland 2014; CCA 2019; Whittman 2018).

But, the pandemic is a doubled-edged sword. On one side, "the COVID-19 pandemic has created the largest disruption of education systems in history [impacting] 94% of the world's student population… as much as 99% in low and lower-middle income countries" (UNESCO 2019). But on the flipside, it has refocused the spotlight to bring renewed attention to diversity, inclusion, and equity in the wake of social unrest and demands for social justice now. Consequently, leaders and learners across the landscape of higher education alike are seeing new possibilities in transforming and reimagining teaching, learning, and student success that align to 21st century learning mandates particularly as it concerns underserved student populations.

2.1 Reconciling the problem and purpose of higher learning

The existential education dilemma of 2020 has collectively humbled teachers, students, administrators, and citizens of the world alike. In unpacking both small and large impacts, we come back to the age-old questions—what is the point and, ultimately, what should the goal of education be? Fallis (2007) traces the inherent and long-standing quandary experienced by colleges and universities where the question of purpose in higher education has been debated since the dark ages. In Fallis' (2007) work on the topic, he and other philosophers ask: should the purpose of education be in the pursuit of knowledge towards emancipatory personal and social change, an intrinsic view? Or, should the main goal of higher education be in seeking knowledge to meet the professional and economic needs of people and society, an instrumental view (Kromydas 2017)?

Conversations about the purpose of higher education institutions perplex leaders, obfuscating their corresponding goals of what continuing and higher education should be aiming towards. These confounding questions serve as a battleground for what should comprise the fabric of transformative learning in mission, policy, and practice. Stakeholders from across the institution wrestle with notions of purpose and typically, Salim (2019) writes, ask three guiding questions:

> Is the central purpose of college to liberate the mind? Is the central purpose of college to ensure vocation readiness, innovative research, and economic vitality? Or, is the central purpose of college to ensure social justice, the common good, and an engaged, awakened and inclusive democracy? (18).

Kromydas (2017) writes that the purpose of higher education and how it functions in our contemporary society remains a contentious debate especially as it relates to 21st century education policy and practice. The popular opinion is an instrumental viewpoint—the purpose of education should be to create enhanced economic opportunity and mobility in the marketplace. However, there is obvious warrant in 21st century education that suggests an intrinsic view towards social justice, democratic missions, purpose, and practice is needed now more than ever. Social inequities have not just persisted, but further, have increased historically as narrow economic policy has been developed to mirror an instrumental outlook. Contemporary philosophers note an inherent and consistent tendency to treat these as contending, mutually exclusive viewpoints. Instead, the 21st century and socio-economic context of learning asks that education at large adopt a complementary understanding of these two views. In promoting meaningful, empowering, and formative higher education experiences, both intrinsic and instrumental views on purpose can and should be considered.

2.2 A short history: How did we get here?

Today, the 'purpose of education' debate rages on and is compounded significantly in light of increased cost, competition, and lower graduation rates. But the larger looming issue remains—we are enrolling more students than ever before and access is more seamless than ever. So then, why haven't higher education institutions, at least incrementally, realized more equitable degree completion? How did we get here?

Intrinsic challenges about the purpose of higher learning are, no doubt, a complex discourse interwoven within and throughout the fabric of an evolving, dynamic, and diverse history of our society. The American higher education system is uniquely decentralized, organized by state instead of federally, and was founded shortly after the arrival of European settlers in the colonial era—Harvard College being the first of its kind in 1636. Before WWII, higher education was thought to be, for the most part, reserved for those going into the ministry, predominantly the elite wealthy, and Caucasian males (Brennan 2004). In the post-WWII era, higher education has commonly been categorized as a mass model. Institutions of higher learning broadened in the way of large-scale departure from their colonial beginnings to include nuanced, state-wide public college and university systems, and continuous growth of smaller private colleges and universities. In the period of expansion and wider demographic enrollment, American colleges and universities were generally reflective of varying intrinsic and instrumental orientations to college readiness and success. More students were graduating and getting degrees with some mix of federal assistance or familial support bolstering market opportunity and their capacity post-graduation.

The era of neoliberal change began in the 1990s when government policy began to adopt economic ideology as a guide to American education policy development. As evidenced in the time since, neoliberal policy is characterized by the reduction of government budget streams due to decreased revenue from corporate taxing, ultimately resulting in a reduction of public spending on public goods and social services. The hallmarks of neoliberal principles (i.e., unrestricted market access, structured deregulation, increased competition, privatization, and hefty cuts in taxation for the wealthy elite) shift not just actual spending, but also the perception about who should pay and who should go to college (Clawson and Page 2011) and the myth of meritocracy for everyone else that remains. Salim (2020) elaborates, noting that "what we have witnessed is a radical redistribution of wealth, power and reorganization if not reconceptualization of our public services, including post-secondary education" (15).

Clawson and Page (2011) discuss the slow boil in both covert and overt ways that instrumental neoliberal capitalist ideology and private corporate interest are woven into higher education structures, pathways, and curricula. In the pursuit to carve more seamless pathways from college to career, critical theory asks the question—is higher education functioning in our society as a carefully contrived social mechanism in service to the economy, ultimately serving the allusive 1%? Or, is the economy functioning in service to the broader society as a whole? In the 21st century context, Hedges (2019) explains that neoliberal ideology not only infiltrates the American higher education system, further exacerbating equitable access and degree completion, but it also normalizes an exploitive and divisive sentiment that has slowly eroded democratic principles formative to American society. Ultimately, the race to the bottom has far reaching ramifications. Perhaps the biggest loser of all, in the context of heightened competition, is how much translates to the ethos surrounding our most essential natural and non-renewable resources.

Economic, ecological, and social crises collide into one frame with 21st century education and COVID-19 contexts. Though many of the pressing issues and policy concerns of the 21st century like environmental sustainability, equity, and social justice have been long-standing, the coronavirus made them more visible—maybe impossible to ignore even for the .01%. More than just visibility, the information age and community mobilization via social media technology fuel curiosity about why these problems persist, what can be done, and all at the click of a mouse. Deep learning and syntheses across history, economic, social, environmental, and ecological systems are transforming how we see the purpose and function of education in the 21st century. In 2020, the jig is up. There is a palpably felt understanding that knowledge is not only power, it is health, it is opportunity, and it energizes the path to transform the past into one that offers promise for the future.

3.0 Social justice context

Although the threat of de-regulation on natural resources, education, and disparities across socio-economic status has long been on the radar, the most recent evidence shows how "racial and ethnic minority groups are bearing the brunt of this pandemic due to disproportionate levels of poverty, less access to health care, pre-existing conditions and other social determinants of economic, physical and emotional health outcomes" (Singer and Rylko-Bauer 2021). Social unrest and lack of responsiveness in the wake of the killing of George Floyd fuel the fire of this social dilemma in a time where nearly every citizen is tuned into technology. Social media technology, in particular, serves as a medium and mouthpiece elucidating the nuanced ways systemic racial bias persists. Singer and Rylko-Bauer (2021) describe the crises of our planet and our people as "not unrelated, but rather a reflection of a syndemic that has taken an extreme toll on particular racial groups due to unchecked marginalization and ensuing disparities across multiple sectors of society." The impact on society can be felt far beyond the boundaries of US soil.

The inspiration for the Black Lives Matter (BLM) movement originally began in 2013 with the acquittal of George Zimmerman after the death of Trayvon Martin. It surged with fresh momentum in Minneapolis, inspiring protests across every state in the US, and internationally across 60 different countries (Weine et al. 2020). Weine et al. (2020) recap the organic evolution and thrust of the BLM movement as it reached South America, Western Europe, West Africa, and Australia. Scholars summarize ways colonial histories continue to shape both ideology and policy as they relate to indigenous, ethnic, and/or minority groups in the allocation of community resources, funding, and support today. Here, political leaders and educational leaders alike are acknowledging a collective consciousness-raising. They are calling for mindful attention in discerning the past to reconcile what is essential and critical to a transformed and socially just educational future (Weine et al., 2020; Aragoni, Schuste, and Dedman 2020).

Citizens of our society are not just saying that enough is enough when it comes to a system and long history of injustices. They are specifically articulating events that intentionally criminalize Black, Indigenous, and/or people of color (BIPOC) through structural violence, and which also offer limited to no accountability in unlawful policing or institutional racism. Even more impactful, societies are empowering the movement and the broader community conversation towards an understanding that “locates the root cause of these problems in socio-economic and political systems that entrench structural power and privilege in the hands of a few and then blame the victim for their own oppression” (Weine et al., 2020).

As the US continues to confront and wrestle with both the existence and pervasiveness of systemic racism, increased community activism—particularly as it relates to the members of BIPOC—is obvious. This most pressing and timely social movement calls on educational, political, and community leaders alike to innovatively posit approaches, perspectives, and strategies to realize a more socially just and equitable society. Consequently, universities and college campuses across the US are noticing the collective spirit across students, faculty, staff, and community engagement to take action and bring to fruition meaningful change towards a more inclusive society that starts with education.

Weine et al. (2020) and Pilling (2020) remark on how societal concerns in the US are not localized to just the western world. Many issues priming the call for change in the United States can also seen across the developed and developing world alike. Of these problems, according to Weine et al. (2020), few things are more important to realizing equitable educational change than the “lack of adequate investments in local services, whether social, health, mental health, employment, youth, or education, that can help” (3). Laurie Leshin, President of Worcester Polytechnic Institute, pointedly remarks:

> Recent crises have shined a light on disparities of all kinds: health and wellness, racial justice, technological access, and educational attainment. Those are not going to be solved overnight. This is where the goals of liberal

> education—long-term thinking, creativity, and problem solving—are well aligned with the work we need to do (Laurie Leshin in Aragoni et al., 2020, 1).

What are the goals of liberal education in the neoliberal 'anything but normal' reality of 2020 and beyond? In tracing where we have been and have yet to go, we reconcile liberal education, intrinsic/instrumental purposes, and core 21st century competencies. The integration of intrinsic and instrumental purposes is fundamental to educational change, and also for a sustained critical consciousness. In this way, the goal is not to reform the system. The system works for those it was created by and for. However, the system as it is designed is exclusionary, functions to serve the status quo, and was never crafted with social justice in mind. Rather than reforming or changing from a systems perspective, we invite a reimagining of the ideas driving, creating, and reifying current systems thinking altogether. We posit a new collective commitment towards the authentic and transformative lifelong learning orientations needed for the 21st century. Together, thought leaders and educational change agents agree that the pedagogical focus of 21st century learning comprises a major paradigm shift departing from transactional market-driven learning. An integration of both intrinsic and instrumental views on the purpose of education is essential (Salim 2020).

4.0 Twenty-first century skills, andragogy and leadership

As professionals in the field of adult and higher education, there is an unspoken acknowledgement that the path into any learning community is riddled with complexities of lived experiences. Neoliberal norms that celebrate transactional styles of passive learning, memorization, historical, siloed thinking, and hierarchal organizational systems have held little space for this acknowledgement and it shows. It shows in attrition, distrust, and diminished compassion for learners who deviate from the college-ready standards that lend an advantage to some, but not all. This phenomenon is especially true and relevant when working with non-traditional student populations in the time of COVID-19 as wider diversity in enrollment demographics include many ranges of higher learning readiness. A multiutility refocusing of the goals, purpose, curricular aims, and instructional approaches of higher education and leadership in the 21st century has been a long time coming.

4.1 21st century education: Inherently andragogical

The American Association of Colleges and Universities' (AAC&U) High Impact Education Practices (HIPs), took center stage in the late '90s as a broader system strategy to curtail alarming attrition rates just as neoliberalism became standard practice. Inherent in HIPs are tenets of active adult learning. Specifically, HIPs target triangulation of narrative, experience, and reflection which intrinsically drive learning. Taylor, Marienau, and Fiddler (2000) explain that "although adults' expressed purpose is usually to work toward pragmatic goals, thoughtful self-reflection often reveals more complex desires" (14). Adult orientations to learning account for the wealth of prior knowledge, life experiences, and unique social circumstances brought to the classroom. Often the goals set forth for continuing and higher education are an interplay of deeply embedded intrinsic wants and instrumental desires for personal and professional growth.

Another gap in contemporary needs is addressed in the P21 framework (2009) which identifies the core 21st century skills essential to success in increasingly global and interconnected work environments. The P21 framework underscores the 4Cs—collaboration, communication, creativity, and critical thinking as crucial lifelong learning skills with emphasis on processes. Kay and Greenhill (2011) suggest that identifying and developing 21st century skills is integral to cultivating competitive lifelong learners whose niche content knowledge may become obsolete, or not applicable, across career changes and the inevitable turmoil in the global market.

There is "no single answer, no one theory or model of adult learning that explains all that we know about adult learners, the various contexts where learning takes place, and the process of learning itself" (Merriam 2004, 199). The singular, narrow, quantitative, discipline-centric, and instrumental orientation of traditional higher education structures and systems acknowledge the utility value of andragogy, via HIPs and the P21 framework. But, the ultimate value of practicing adult learning theory is a contrast to historical structures and is interdisciplinary in nature, moving against traditional and passive knowledge. The practice of adult learning theory invites learners to synthesize big picture understandings—ones that utilize multiple planes of knowledge to best fit the needs of the problem at hand (Repko 2008, 31).

4.2 21st century education mandate: Nexus of reflection, narrative and experience

Today, more so than at any time before, it is imperative learners be adept, thoughtful, creative, critical, and collaborative life-long learners in their segue to the marketplace. Not only do learners need to employ active andragogical interdisciplinarity in applying content in a wider schema of concept relationships, but they also need to do so while articulating from a purposeful, integrity-driven ethos within the multicultural world. In this way learners transform ways of knowing and ways of being. And, even before the time of COVID-19 and BLM, an emerging consensus from the field underscores deep and active learning to prime students' abilities to 'learn to learn.' Here, scholars are placing more attention on cognitive and metacognitive strategies focused on deep learning, growth mindset (Dweck 2006), and meaning making within educational opportunities.

4.2.1 Reflection

When it comes to the goals and purpose of 21st century higher education, the starting line of collective consciousness raising starts with the learner. Brookfield (1986) asserts transformations only happen when individuals challenge their assumptions and thinking. The learner must have a want and desire to cultivate mindfulness, awareness, and this must begin and be initiated by the learner themselves.

Brookfield (2009) posits faculty, students, staff, and administrators similarly can go their whole academic, personal, and professional life thinking and accepting without question an institutionalized ideology. Therefore, neoliberalism continues to be reflected and reproduced as "seeming to be normal, natural, and inevitable (hence self-protecting against challenges to inherently preserve the system)" (Brookfield 2009, 127). This is true even in such cases where the particular perspective is counterintuitive to one's own lived experiences and the ecosystems which we depend on, as well as social interests. As such, critical reflection is an essential, integral, and formative component of the 21st century core curriculum. From the first-year undergraduate to graduate classrooms, this means holding and creating space for vulnerability and discomfort in service to missions which promote agency for 21st century learners.

4.2.2 Narrative

The predominant narrative of who attends college is another good place to extend beyond critical reflection. In this way, we can move from our own sense-making into curious discourse about what fuels both intrinsic and instrumental views of higher learning in the 21st century. The carefully curated story we often see woven throughout media and societal messaging says higher education is a reserved and an exclusive experience depending on your intuitional aspirations. For the most part, this demographic comprises middle income, affluent, and traditionally aged students of 18-20. The major they choose, influenced by social and cultural constructions, and most importantly, their perceptions of ability to academically perform in a given discipline, play an impactful role in persistence to graduation (Kerpen 2017) not just in the US, but around the globe (Burkholder and Holland 2014; Dorsett 2017; Ferreyra et al., 2017; Nutt and Calderon 2017; Whittman 2018; Yeager et al., 2014). The space we hold for reflection and the one for sharing nuances of our narrative are one and the same. Each asks for courage and vulnerability to confront and think deeply about messages of opportunity and ability when it comes to sense-making within 21st century education.

Student engagement, development, and success are at the core of transformations in 21st century higher education. Higher education institutions acknowledge, aim to advocate, and offer agency to the "whole student." However, an important aspect of serving the whole student, particularly the underserved student, would be qualitatively inviting the multiplex of knowledge planes that contribute to how they view themselves and the world around them. Even further, it is important to consider how a learner threads their narrative to or from deficiency perspectives (Whittman 2018), fixed/closed mindsets (Dweck 2006), perceptions of capacity, social constructions of knowledge, and belonging (Yeager et al., 2014). Unpacking the narrative's relationship to learning, and how it may be informed by any number of real or perceived outlets, offers a way to understand the nuances of the student experience (Dorsett 2017; Ferreyra et al., 2017; Nutt and Calderon 2017; Yeager et al., 2014). The resources, curricular intentionality, and instructional approaches celebrating the narrative in this way provide learners a way to mindfully develop and foster a lifelong cognitive map. This cognitive map gives learners a high value and always relevant resource in educative and noneducative journeys—the resource of knowing oneself.

4.2.3 Experience

Historically, the instrumental neoliberal modus operandi leverages quantitative methods to target ‘easy’ experiential variables like drop-out rate, progression to the sophomore year, and research designs that are limited to the finite window of enrollment. Typically, this measures and encourages praxis in competency-based skills (Harvey et al., 2007). Competency-based skills measures include, but are not limited to, test taking skills, study skills, and time management, and are benchmarked by a learner’s past educative and non-educative experiences. Such benchmarks consistently reveal disparities between minority and underserved student populations and their Caucasian affluent counterparts. Ultimately, “experiential learning is integrative, and non-disciplinary: it is a basis for interdisciplinary studies” (Dinmore 1997, 452).

Interdisciplinary modes of inquiry, like experiential learning, serve as a vehicle for learning providing to use “resources of [the] highest value” pertinent to the individual when investigating complex phenomena and 21st century issues (Lindeman 1961, 6). Using resources that are most relevant and salient to the individual, particularly in social justice contexts, may serve to broaden the scope of inquiry to better understand the complexity of the learning phenomena. Experiential learning in the 21st century parallels interdisciplinary inquiry and provides learners a way to cut across disciplines in order to include previously learned information from multiple formative outlets.

For example, how a student has performed, or experienced academic success, historically in traditional k-12 contexts, is often used as a benchmark to gauge perceptions of long-term capacity. However, there is much that remains unseen in this approach. The invisible aspects of social adjustment and the relationship to achievement, prejudice, and disadvantages in social/cultural/actual capital are unacknowledged and invalidated. This is largely problematic given the substantive number students who arrive at institutions of higher learning as the products of inadequate school systems. Further, quantitative and exclusively instrumental approaches that go unchallenged result in learners being “labeled as remedial and [being] forced to carry the weight of having been marked with academic deficiencies before ever setting foot on their postsecondary campus” (Whittman 2018, 32).

5.0 The future mandate: strategies in authentic transformative leadership

"In an age of transition, one of the key dimensions of leadership education is not just learning, but unlearning" (Montuori 2010, 6). The current state of affairs in higher education leaves students wanting and ill-prepared for leadership in the interconnected 21st century context (Brown, Whitaker, and Brungardt 2012; Zapalska, Shuklian, Rudd, and Flanegin 2012). One-sided and traditional approaches teaching students what leadership means or looks like offer stagnant definitions that are not inclusive of minority, multicultural experiences, or multiple identities, and ultimately, do not promote authentic transformative leadership.

5.1 Social justice and leadership curricula

There is inherent subjectivity and divisiveness in what it means to be an effective leader—the notion is subject to change, evolution, and exigence from country to country (Aimar and Stough 2007). Educational change agents and authentic leaders are challenged to design/develop meaningful experiential curricula which puts 21st century skills into application (Brown et al., 2012). This is particularly demanding in the time of COVID-19, divisive rhetoric, and diversity across cultures within the broader social justice movement.

However, Schild and Holmes (2011) note meaningful leadership must include more than simply a context for change. To enable authentic transformative leadership "teacher leaders create activities aligned with the curriculum; engage students; provide exceptional, varied teaching strategies; and integrate rich resources and the necessary tools for affecting the learning experience" (Schild and Homes 2011, 205). Further, Boyd and Williams (2010) detail the purpose of learning should integrate both intrinsic and instrumental views; resonate with the narrative, experiences, and intentionality of the learner; and finally, motivate lifelong learning.

Montuori (2010) outlines four essential qualities in curricula design to combat systemic neoliberal ideology: (a) ways of being, (b) ways of knowing, (c) ways of relating, and (d) ways of doing. Fundamental to 21st century interdisciplinarity (Moran, 2002), each dimension fosters andragogical self-directed reflection about one's own abilities and social constructions of knowledge in their relationship to self and others. Collectively, each question drives meaningful, authentic, and transformative learning experiences.

5.2 Challenges and outcomes

Promoting un-learning is difficult because students encounter hegemony and conformity that run in opposition to social justice (Brookfield 2005). There is a tendency to simulate or mimic dominant perspectives as models for what leadership means or what a leader should be like. To create authentic and transformative leaders, it becomes necessary to foster learning that abandons fixed assumptions about leadership, and thus, emancipates leadership practice as a distinct reflection of culture, personal narrative, and experience.

Learners who put into practice 21st century skills like creativity, collaboration, and critical thinking implicitly apply cross-cultural communication. In this way, learners are offered examples of how different leadership theory may be in practice. Collaboratively, they discover that even in a small learning community of two or three, each person has a unique leadership voice anchored to their culture, narrative, and experiences across their personal reflections. Learners begin to understand themselves, how their past, culture, upbringing, and even their chosen academic focus influences who they are, the choices that they make, and their perceptions of the world.

6.0 Conclusion, implications, limitations, and further research

My own narrative into higher education as a traditional-aged learner was convoluted by financial hardship, crippling imposter syndrome, and very little social/cultural capital. It was also a decidedly andragogical orientation. Being the first in a large multicultural family to pursue higher education, like many 21st century learners, I found the messaging about college and education in general to be overwhelming, conflicting, and complicated. In the period of the 2008 recession, I wondered if the time, the strain on mental health, and money spent was worth it—a sentiment I encounter almost daily in the classroom with 21st century learners.

6.1 Transformative learning and leadership—Authentic critical reflection on narrative and experiences

The frustration felt by many learners in the 21st century, including from my own experience, is a powerful primer for learning. The backdrop of social justice adds to this frustration. For some students, it is an indicator and a compass for their needs and motivations driving their unique academic journey. “Experiences that provide learning are never just isolated events in time” (Merriam and Caffarella 1999, 233). Instead, learners must connect what they have learned from current experiences to those in the past as well as see possible future implications” (233). Integrating knowledge from multiple sources, cognitions, attitudes, events, and situations provides a deeper level of conception when it comes to understanding authentic and transformative learning in the 21st century.

The paradigm shift brought about in 21st century education should enable authentic pathways of learning rooted in social justice. Leaning into this practice takes vulnerability and courage to hold space for the narrative and experience and should begin within the higher education system. Learners who do not have models and previous exposure to this practice need them. They need opportunities to recognize the nuances of humanity in their instructional guides, their administrators, peers, and academic support resources as real-life examples. This makes it visible, and de-mystifies ideas that often stay elusive and invisible. Models show what the practice of moving from a narrative and through continuous critical reflection of experiences looks like over time, not just during enrollment. It invites raw exposure. It is not a practice that is easy to phone-in, or fake. It is not found in the number of publications or niche obscure knowledge bases. Rather, it is in the felt experience of connection and vulnerability to see and hear what has brought a student to the classroom, deep down.

Figure 1. Transformative learning and authentic leadership

Mezirow (1991) described transformative learning as cognitive and/or behavioral change in how a learner makes meaning about himself/herself, and consequently, how they participate in the world. And so, the goal of 21st century learning and leadership, driven by social justice, is a good fit for transformative theory. Scholars must similarly echo how authentic transformative education should promote change from within, but also needs external change. External change should be related to changing neoliberal ideals in service to a greater and more inclusive world. This is done by starting with the narrative, with one's own experiences, and the key thresholds of critical reflection that enable unlearning, re-learning, or discovering something all new.

Stakeholders across the landscape of education in the 21st century should anchor discussion in narrative, critical reflections, and experiences while also offering comparisons across cultures to challenge ways of knowing and being (Montuori 2010). Additionally, sharing examples of self-directed learning, community engagement opportunities, inviting new experiences, and new environments are also powerful strategies to invite thinking about ways of relating and ways of doing (Montuori 2010). Narratives are particularly powerful when they are situated within current events and promote agency for advocating action on concrete social justice issues we are experiencing real time. Giroux (2004) suggests "culture now plays a central role in producing narratives, metaphors, and images that exercise a powerful pedagogical force over how people think of themselves and their relationship to others" (62). Authentic transformative leadership is modeled when we share and hold space for introspection and engage in communication to make meaning of our own individual role. Further, we practice demystification, and make this reflexive practice more accessible to students who may encounter obstacles in mindset, fit, belonging, and limited social/cultural capital. Because, ultimately, it is difficult to be what you cannot see.

6.2 Implications for leading 21st century adult and higher education change

Adult education utilizes varied student-centered interdisciplinary strategies which encourage self-directed (Cafarella and O'Donnell 1987), experiential (Kolb 1984), transformative (Mezirow 1991), and reflexive learning (Boud, Keogh, and Walker 1985) to empower lifelong learners and inspire educational change (Brookfield 2009; Candy 1991). The BLM movement and 21st century andragogy inherently celebrate much of the same. Educational change leaders who facilitate emancipatory learning aim to realize personal change, societal change, advocacy, and promote novel learning opportunities. These opportunities are typically timely, relevant, experiential, reflexive, and hold the possibility to challenge ideologies. They also offer the learner authentic and transformative leadership perspectives for a changing and interconnected technological global world.

Perspective transformations are ultimately difficult to quantitatively measure in the finite window of degree completion. Transformations are also challenging to celebrate in traditionally siloed and hierarchal systems. Creatively broadening the scope of inquiry with respect to how we measure integrated instrumental and intrinsic purposes beyond the enrollment window could bridge gaps in our limited understanding. As the pervasiveness of data collection and technology becomes more common, we also may find that there are strategies, particularly with regard to social media, which make discerning qualitative nuances of the student experience more seamless. Ultimately, the hope is to make meaningful strides towards addressing the root cause of attrition in underserved student populations. Finally, approaching leadership inside and outside of the educational classroom means rethinking how we perceive the goal and purpose of learning. It means celebrating unlearning, intentionally inviting learners to do so as well, and being open to whatever andragogical content might be driving learning through the sharing of narrative and experiences. Social justice is the roadmap for change and transformation in 21st century higher education and it starts within each of us—it is up to all of us.

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III.

Leadership in the Future - Insights from Futures-Studies and Foresight

Anticipatory Leadership: An Invitation to be More Creative and Resilient

Mattia Vettorello & James Burke

Abstract

In today's entangled society, leaders face a complicated mix of underlying and interrelated conditions, characterized as VUCA (volatile, uncertain, complex, and ambiguous). Short-term focus and daily operational demands force many leaders into a stimulus-quick response pattern that denies them the advantages of proactive thought, anticipation, and planning. While it is more efficient to actively prepare for emergent conditions, rather than reacting to threats and opportunities as they appear, we looked at ways to break that short-term cycle by offering a novel leadership style which we refer to as *Anticipatory Leadership*. Anticipatory Leaders could use specific foresight capabilities to familiarize themselves with VUCA and creatively bypass near-term threats. These capabilities include *Futures Thinking* to generate hypothesized visions and comprehend different driving forces; *Scenario Planning* to understand potential environments in which the vision would be achieved through alternative futures conveyed by; *System Thinking* to allow for identification and investigations of the interrelationships between internal and external environmental elements; and *Contingency Mapping* to foresee options for anticipatory execution and agility under VUCA-Future (vision, understanding, connectivity, and agility) conditions. With this integrated set of capabilities, the Anticipatory Leader can creatively transform VUCA-Present into VUCA-Future. By embracing this leadership style, we believe that the reactionary leader can better anticipate emerging threats and opportunities and more effectively lead the organization in turbulent conditions.

Keywords

Anticipatory Leadership, creativity, emergence, foresight, futures thinking, scenario planning, system thinking, contingency mapping, VUCA

1.0 Current Leadership Landscape

Rare is the leader who does not daily make multiple, important decisions with incomplete information about complex business conditions (Drucker 1967). Business and innovation leaders have learned to rely on intuition and a variety of tactical, operational tools to ease many day-to-day choices. Such tools and aids range from relatively simple spreadsheets to more complicated predictive analytics, artificial intelligence, and machine learning. The demand for such predictive tools is increasing, projected to grow around 21% through 2022 (Edwards 2019). However, relentless opportunities and challenges frequently involve decisions that call for pattern recognition and deal with historical data used to predict future conditions. Leaders often aim for near-term understanding and more immediate options rather than long-term value creation. This approach is most useful when tomorrow is more like yesterday, and the questions are those of scale and efficiency. Predictive analytics can inadvertently mislead and cause leaders to overlook potential longer-term consequences, problems, successes, and implications (Grady 2017).

There is a contrary need for a different approach when conditions emerge with greater uncertainties and unknowns. Indeed, in today's entangled society, leaders face a complicated mix of underlying and interrelated conditions, characterized as VUCA – volatile, uncertain, complex, and ambiguous (Mackey 1992). For this chapter, we will call it *VUCA-Present*, the lens that leaders commonly use to analyze and filter such factors to make sense of potential influences on the business environment. Such conditions are known to bias leaders, blurring the future vision they often have and instilling doubts about decisions regarding the possibilities that could facilitate organizational success or cause failure (Tighe 2019). This is further strengthened by what Segal characterizes as "a crisis, scandal, disaster, or other emergencies" which are conditions that present themselves unexpectedly for which an organization has not planned (Segal 2020, xviii). COVID-19 is an example of such unknown and unprecedented conditions which demand leaders use a different approach to strategy. An earlier study (Reeves et al. 2016, 4) claimed that there are a variety of ways businesses can stumble and fall: "Companies are dying younger because they are failing to adapt to the growing complexity of their environment. Many misread the environment, select the wrong approach to strategy, or fail to support a viable approach with the right behaviors and capabilities".

It is a leader's responsibility to identify and decisively address changing conditions as they guide their organizations into the future. The competition will increase and leaders will be called to more deeply explore, understand, and design effective innovation strategies to convert adversities into points of leverage. To go beyond and make sense of data filtered through the VUCA-Present lens, leaders could embrace an innovative and anticipatory attitude toward the wonder of uncertainties (e.g., not knowing the probability of the cause-effect of certain decisions) and be comfortable with their presence. Simply put, they should see uncertainties also as indicators of advantages rather than daunting challenges (Miller 2018). We, therefore, argue that there is a need for leaders to apply future-oriented leadership in proactively creating and driving organizational strategies. Foresight and anticipation could serve to overcome stagnation caused by a focus on analyzing and responding to current conditions through a VUCA-Present lens (c.f. Vettorello et al. 2020b; Dong et al. 2015; Miller et al. 2013; Miller and Poli 2010). We recommend a leadership style called *Anticipatory Leadership*. This approach uses specific foresight capabilities as its foundation: *Futures Thinking*, *Scenario Planning*, *System Thinking*, and *Contingency Mapping* (as explained below). When integrated and combined with the underlying creativity of a "designerly way of thinking" (Johansson-Skoldberg et al. 2013) Anticipatory Leadership style serves to observe and transform VUCA-Present obstacles into organizational advantages. We term it *VUCA-Future* which stands for vision, understanding, connectivity, and agility.

This chapter unpacks the ideas above to highlight how leaders can use these key capabilities to become anticipatory and thrive today and tomorrow. The aim is to surface a way of thinking and doing, using future possibilities, to explore, understand, and address complex, ambiguous current and emerging situations. It is also a call to identify and analyze intrinsic uncertainties to uncover hidden opportunities. We suggest that it is more productive and efficient to think forward and long-term, and to actively prepare for uncertain emergent conditions (Anticipatory Leader), rather than reacting to threats and opportunities as they appear (Reactionary Leader).

2.0 Anticipatory Leadership: An introduction

Anticipatory Leadership is a relatively new concept that does not appear to have garnered foresight and business community agreement about its specific characteristics. Examples abound of different interpretations. Savage and Sales (2008) argue that the Anticipatory Leader ideally is a "futurist, strategist and integrator". Ratcliffe (2015) suggests five anticipatory literacies which he terms *Awareness* (practice self and social mindfulness and management); *Authenticity* ("be yourself" and understand organizational values and direction); *Audacity* (be bold, visionary, and "challenge the process"); *Adaptability* (prepare for many contingencies); and *Action* (execute the plan, lead, and measure). Ramos (2014) argues that anticipatory governance is a tradition that had its start with Alvin Toffler in the 1970s as a way to handle accelerating change. Ramos suggests that the variations of foresight techniques can contribute to anticipatory governance in supporting, for example, the design and experimentation of novel policies. Similarly, Fuerth and Faber (2012) apply the concept of anticipation to governance, emphasizing it to be a necessary skill. Specifically, they call out that "Government needs leaders who are proficient in foresight and requisite skills such as collaboration, coordination, adaptability, and others that have always been valuable to have, but now have become required to succeed" (Fuerth and Faber 2012, 27). However, the UNESCO Futures Literacy project notes "that much of our understanding of anticipation remains cursory and fragmentary" (Miller et al. 2018, 54). In turn, Anticipatory Leadership aims to deliver adaptive capacity to respond to rising business challenges by identifying and exploring alternative futures. This involves uncovering hidden opportunities, better characterizing uncertainties, and motivating wider organizational innovation.

To embrace and use an Anticipatory Leadership style, we argue that leaders should become firstly Futures Literate, to know how to sense and use futures in the present, and to exploit inherent uncertainties as advantages (See also Miller 2018). *Futures Literacy* is a capability to reason about what the present has to offer, to explore interconnections within the system to leverage off them toward reaching a preferable future (Miller 2007). This thinking can be supported by hypothesizing and categorizing possible, plausible, and desirable futures to better define conditions (and what to avoid) of a preferred future (Voros 2017). In a later publication, Miller (2011) emphasizes that Futures Literacy is about improvisation and spontaneity, and the ability to be comfortable with ambiguity, uncertainty, and change. Futures Literacy is about 1) being anticipatory, 2) hypothesizing alternative futures, and ultimately 3) deriving sense and meaning from futures to use as catalysts of change in the present. We suggest that leaders who become futures literate will better understand and adapt to the underlying conditional states of VUCA-Present. Based on the above, we present Anticipatory Leadership that integrates four foresight capabilities:

- *Futures Thinking* to generate hypothesized visions and comprehend different driving forces that could affect vision achievement positively or negatively.
- Understanding of potential environments in which the vision would be achieved, through alternative futures conveyed by *Scenario Planning*.
- *System Thinking* to allow for identification and investigation of the interrelationships between internal and external environmental elements.
- *Contingency Mapping* to foresee options for anticipatory execution and agility under VUCA-Future conditions.

The four foresight capabilities empower what we refer to as a Reactionary Leader to become an Anticipatory one. Reactionary Leaders can be complacent, failing to imagine how future and emerging conditions and business dynamics could affect their management plans. Or they are paralyzed by the range of uncertainties present in VUCA-Present. Hence, they react to events rather than conceptualize possible strategic action before adverse events occur. The four foresight capabilities help the leader transform the adverse conditions that often emerge in VUCA-Present, of *Fear, Indecision,* and *Doubt* (FID), into VUCA-Future (Vision, Understanding, Connectivity, and Agility). The VUCA-Future is a hypothesized future state that builds on the VUCA-Present challenges and underlying FID conditions to explore opportunities, be creative and resilient, and proactively shape the future. Figure 1 offers a summary of the Anticipatory Leadership style highlighting the transition between VUCA-Present and its FID into the desired VUCA-Future which invites *Creativity, Exploration,* and *Anticipation* (CEA). CEA aids Anticipatory Leaders in better exploring and recognizing potential longer-term opportunities to form such a VUCA-Future state.

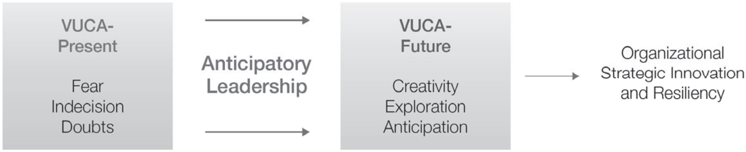

Figure 1. Anticipatory Leadership, from VUCA-Present to VUCA-Future to produce organizational strategic innovation.

Below, a visual detailed summary is offered (see Figures 2 and 3) comparing the two styles of leadership. On one hand, the Reactionary Leader responds to the present and emerging environment without foresight capabilities (Figure 2). On the other, the Anticipatory Leader frames possible future conditions, anticipates and prepares for current possibilities and threats, and eventually designs adaptable future strategies (Figure 3). In the following sections, we will explore each of the four foresight capabilities and their value for the leader.

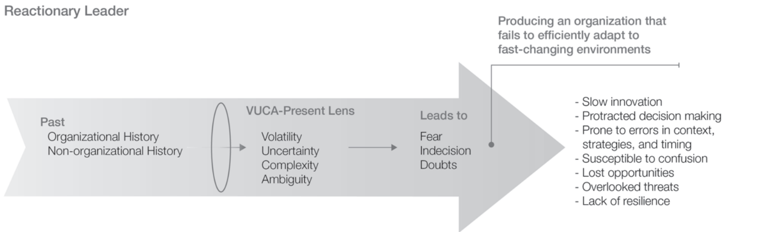

Figure 2. The Reactionary Leader journey is saddled with inefficient plans and short-sighted responsiveness.

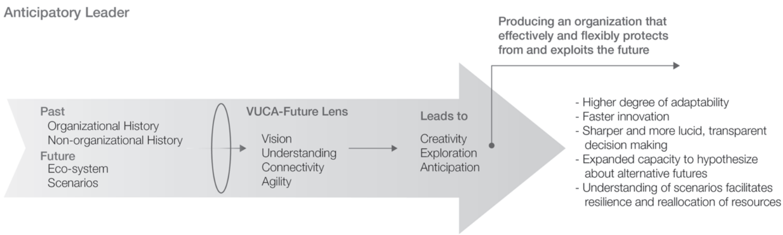

Figure 3. The Anticipatory Leader creates resilience and organizational flexibility on the journey to the future.

3.0 Framing Futures: Foresight Ambidexterity

Even before COVID-19 ravaged global businesses and society, long-term corporate success was being threatened regularly. Reeves, Levin and Ueda (2016) state that one of the keys to reversing that trend is to watch for emerging events. This entails collecting both weak signals (i.e., those on the margins that are not yet influential) and strong signals (i.e., ongoing, impactful trends). Integrating those two types of signals allows an exploration of possible patterns of change while imagining plausible outcomes. It also serves to identify ways to increase preparedness against adverse events (Battistella and De Toni 2011). We enthusiastically agree with that suggestion and believe it is inherently operational in the proposed anticipatory style. Indeed, the characteristics of Futures Literacy and the foresight capabilities apply well to the context of business and innovation leadership. For this, and before we dive into the foresight practices, it is important to emphasize the particular importance of setting the stage for anticipation, known as *Framing* (Van der Laan 2020). Framing is about asking the right questions and setting the boundaries to define the foresight playing field for the leader's analysis. Burrows and Gnad (2020) list these foresight activities under framing:

- *Scoping*: Define and bound topics, specifying their geography and time frames;
- *Mapping*: Locate the topic in its context, system, assumptions, and worldview. Include key drivers of change which may be presented in a visual map;
- *Retrospecting*: Understand the topic or systems history and pivotal changes. Particularly, look back to explore the last major discontinuity;
- *Assessing*: Diagnose audience knowledge identifying stakeholders, modes of learning, and receptivity to the current state, to prepare engagement processes and presentations appropriately.

The lesson for the Anticipatory Leader then is to properly identify the current mindset, the operational landscape, and the initial framing. Without analytical boundaries provided by framing, the exercise will lack planning structure and focus rendering it too broad and ineffective. Another important part of framing is to determine the starting analytical business point (e.g., current business conditions or the expectation for next quarter operations), the timeframe for organizational assessment and re-planning (e.g., near – 3 to 5 years, or far-term – 10 to 20 years) and the reasons for the needed anticipation. The rationale could include and invite a periodic assessment to support strategic planning or the exploitation of turbulences, like a natural or man-made disaster, that throws into question all plans and planning assumptions. Given the ongoing social, political, and technological turmoil, globally and locally, VUCA-Present would likely be part of the background and operational environment.

One of the first assessments facing the Anticipatory Leader after framing is to determine whether the conditions are somewhat familiar or unexpectedly or potentially novel. In the case of the former, the foresight and anticipatory activities address less uncertain conditions. They are built on past information with patterns more discoverable, resulting in potentially more accurate forecasts. In the latter ones, the range of scenarios to be created are likely to be narrower, but not so thin as to exclude "wild-card" scenarios, those that are low probability, but of high impact (Pavolova et al. 2017; Mehrabanfar 2014). In this perspective, we suggest that to be anticipatory, the leader needs to understand and evaluate both extremes of the spectrum of the future (i.e., the linear projected future and the preposterous one generated from unexpected/novel events) and also what is in between. This entails the concept of *foresight ambidexterity* to enhance Anticipatory Leadership. This means a capacity to look forward methodically combined with an ability to analyze and make sense of the past. A good rule of thumb is to look twice as far into the past as into the future (as suggested by Saffo 2007). Simultaneously, the effective Anticipatory Leader understands that the future is not a linear extrapolation of the past. The future likely will have dramatic discontinuities from history. The ambidexterity involves an awareness of how to best balance that past and the possible futures for forecasts and stories of the future. Figure 4 illustratively offers insight into this balancing act to create a space for decisions today.

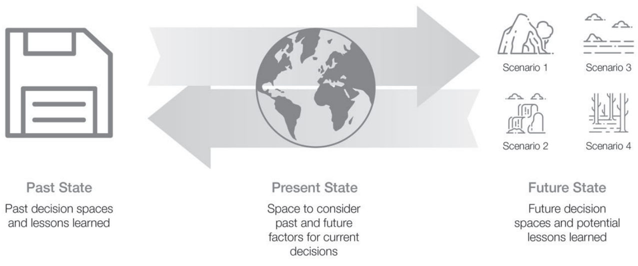

Figure 4. Current decisions are affected by the lessons of the past and the potential lessons of the future. The ambidextrous Anticipatory Leader considers and integrates both.

A useful framework for this dual perspective is the *OODA Loop* (Figure 5), created by U.S. Air Force fighter pilot John Boyd as a decision-making tool for air combat operations (Vettorello et al. 2019; Richards 2004). OODA stands for observe-orient-decide-act. The Anticipatory Leaders can apply observation and orientation to initiate foresight activities. They can look back to see similar situations and look forward to scope for newer, unique threats and opportunities (foresight ambidexterity in practice). In this way, the leader resists the “flux, instability, paralysis […] and increased levels of unresolved conflict” (Kok and van den Huevel 2019, 61); what above we refer to as fear, indecision, doubt (FID). In this case, the Reactionary Leader moves out from a passive, defensive posture that can emerge from VUCA-Present – FID – to a more proactive stance – vision, understanding, connectivity, agility – that is actively scanning for exploitable opportunities embedded in trends analysis and forecasts, eventually, formulating a VUCA-Future.

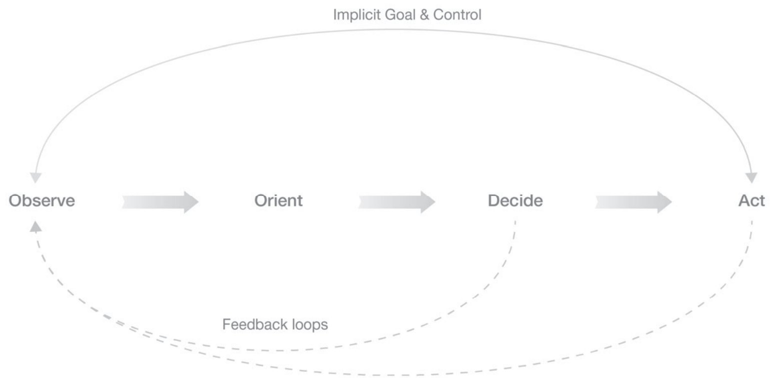

Figure 5. Illustration of OODA Loop with iterative looping back. Every step requires observation to understand the correctness of reasoning in orientating, decision-making, and acting.

4.0 Futures thinking creatively yields potential leverage points and paths to achieve the organizational vision

Assessing and acting on current events and situations for future advantages (VUCA-Future) invites Anticipatory Leaders to use futures thinking (Vettorello et al. 2020b; Voros 2017; Dong et al. 2015) to envision the range of possible futures, rather than attempt to predict the single, likely future. Anticipatory Leaders are comfortable with unknowns and uncertainties and are willing to lead more flexibly. Similarly, leaders should embrace a "designerly way of thinking" to use creative processes to help develop these futures (Johansson-Skoldberg et al. 2013). For example, design thinking is a creative process (Brown 2008) that has been extensively used in business as a lever of competitive advantage and as a practice for differentiation (Landoni et al. 2016; Liedtka 2015). One added thought is from Gharajedaghi (2011, xx) who asserts that "Designers […] seek to shape rather than predict the future". The integration of creative cognition with futures thinking invites possibilities for a broader, more comprehensive understanding to interpret the dynamics of complex systems and the application of creativity to identify and solve challenges in novel ways (Burke 2015).

The new hypothesized information and candidate solutions created by integrating foresight and design could inform corporate strategy. This can provide low-risk stress tests about directions the organization might be willing to take. Also, stress testing (i.e., seeing how a strategy works in a complex scenario) is likely to help leaders identify obstacles that might deny innovation and point to overcoming tactics. Analyzing VUCA-Present with Creativity, Exploration, and Anticipation (CEA) is likely to improve the potential to produce alternative, novel future-informed ideas and solutions aimed at resolving problems. These processes are especially useful when the problems at hand are not sufficiently well-discovered and attempt to fully and firmly determine their nature are futile. These situations are sometimes termed "wicked problems" (Buchanan 1992), a characterization that tracks well with VUCA-Present. In VUCA-Future, any proposed solution is designed to keep evolving as more is revealed about the actual problem. Foresight capabilities combined with creativity enhance vision for possible futures, refine criteria to assess forecasts and align actions with goals.

Therefore, we suggest that Anticipatory Leaders should become futures literate to develop future-oriented hypotheses best. They will embrace an open, positive attitude toward this constant flux and the wonder of change. This implies the Anticipatory Leader and other company stakeholders' agency at different levels understand and shape alternative future scenarios. Eventually, while driving toward the company vision, Anticipatory Leadership could empower leaders to find and exploit various opportunities and be more ready to face challenging and fast-changing dynamic situations.

5.0 Scenario planning yields an understanding of possible alternative futures

The second capability is scenario planning which can be characterized as expeditionary or exploratory. To make this easier to understand, we offer a narrative example of each exploratory or expeditionary scenario planning. One of the authors (Vettorello) has background experiences that clarify the distinctions between exploration and an expedition. As an avid hiker, Vettorello often goes on excursions where the conditional expectations are relatively narrow, but not necessarily less challenging. These conditions could be arduous, but generally within expected constraints for terrain, weather, wildlife, etc. This type of hike is like an expedition. The exploratory scenarios he created to think through and apply his knowledge of short hikes, with conditions more expected, gave him a sense of ways to understand known parameters and adapt to them. When Vettorello craved a more challenging, less certain hike, he found it in an 806-kilometer solo-and-unsupported trek across Iceland. If physical countries were categorized as VUCA-Present, Iceland would be a leading contender, with its volcanoes, geysers, hot springs, and lava fields. Iceland represents a constant flux resulting in higher alertness and preparedness of its citizens. It is a country renowned for geological and weather instability. For Vettorello, this was like an exploration, with far greater uncertainties and much less knowledge. This demanded more creative and wide-ranging scenarios to plan and compensate for less understanding. The scenarios had to include solitude, harsh winds, shifting grounds, unpredictable storms, and no pre-established resupply locations, all within a 30-day plan. Expanding the scenarios to include a wider range of contingencies was valuable, and he was able to complete his arduous exploration in about 28 days with few surprises. In these two examples, Vettorello was acting as an Anticipatory Leader.

Just as Vettorello's future-oriented scenarios offered him insights into hiking, stories about the future can allow organizations low-risk ways to evaluate adaptations to different conditions. A rudimentary method involves the creation of a quadrant using horizontal and vertical axes. The axes represent extremes of conditions or forces that the organizational planner believes are critical. For this, framing is vital as the axes create the boundaries to design alternative futures. For example, one axis could be the success or failure of vaccines developed for a future pandemic; another could be cooperative or contentious relations with China. Another possible approach to identifying possible future conditions is to treat VUCA-Present as the range of forces (i.e., high/low volatility; extreme/no uncertainty;

simple/complex global relations; clear/ambiguous conditions). The scenarios are then named and mapped onto the quadrant. Figure 6 offers an example.

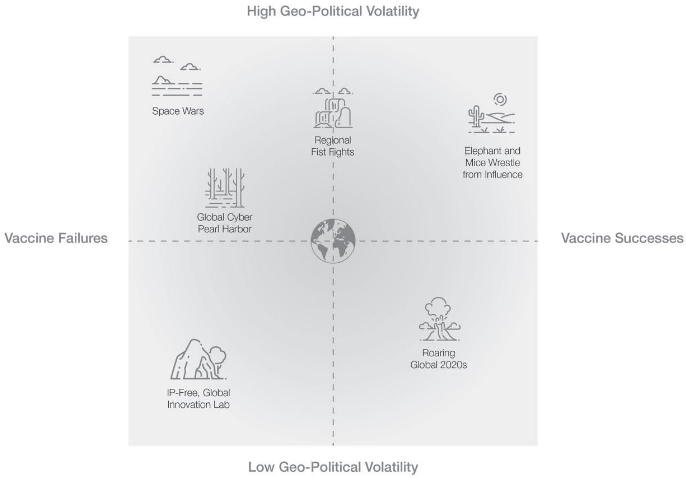

Figure 6. Scenarios mapped to major forces offer planning fields for organizational foresight and options.

Each scenario should include the particular stakeholder assumptions that go into the narrative for each scenario. It is crucial to create a range of scenarios, some of which that are outside traditional business boundaries (Tighe 2018). This allows planning groups to see things from a different and new perspective (de Brabandere and Iny 2013). Even if the scenario planning group is limited to internal players and stakeholders, the range of assumptions is usually broad. Capturing those assumptions, say, for example, that growth will continue at 3-4% globally or retract 2-4%, sets up natural discussion points where the evidence, or lack thereof, for the assumption can be understood. The idea is not to eliminate or even argue assumptions but to understand them in the context of the stakeholders, scenarios, and potential corporate strategies. For each scenario, the Anticipatory Leader and stakeholders ask:

1. How would we operate resiliently in that scenario?
2. What are common elements across the scenarios?
3. What are the low-probability and high-risk events?
4. What are the implications of the scenarios?
5. What can we ignore and why?

Capturing those answers gives leaders ideas for common activities while offering rehearsals for uncommon events. It is useful to consider wild-card scenarios, high impact-low probabilities and to create a story or two about unusual circumstances that could occur. We suggest leaders start from the World Economic Forum (WEF) Global Risks Report 2021. The leader can randomly choose one of the low-risk, high-impact projections and solicit the stakeholders for their ideas about specific implications – threats and opportunities – that the organization could face. For the skeptic in the group, the leader could point out that on a scale of 1-5 infectious disease was rated as below 3 on likelihood and below 4 on impact (WEF 2021). The point is that wild cards and certain scenarios can stress test the organizational plans to address negative consequences and emerging opportunities. Although this is not intended to be a primer on scenario development – for this, see the insightful Burrows and Gnad (2020) – we do suggest that the Anticipatory Leader can use scenarios to explore interrelationships of planning forces and elements and better understand possibilities of multiple futures and perspectives for corporate engagement.

6.0 Scenario analysis and system thinking of the future yields understanding of systems connectivity and interrelationship of elements

"A system is a set of things - people, cells, molecules, or whatever - interconnected in such a way that they produce their own pattern of behavior over time" (Meadows 2008, 2). As a third capability, system thinking is a concept that calls for reasoning about great complexity. It helps leaders understand in-depth and anew the connection and relationship between elements of that system. It is a recognition that the whole is greater than the sum of the parts and that "tiny changes in initial conditions could lead to vastly different outcomes, making long-term prediction impossible" (Lent 2017, 358). An important ingredient for the Anticipatory Leader in creating forecasts is the understanding of the ways that system elements could connect and interact. Essentially, the Anticipatory Leader facilitates awareness of potential system elements. That awareness is critical to identifying expected and unexpected consequences.

To help in this, *STEEPE* analysis (social, technical, environmental, economic, political, ethical) is useful in collecting, identifying, and understanding current and emerging trends and assumptions that affect the system elements. From this analysis comes an understanding of potential interrelated scenario assumptions and forces that will drive the organization in future transitions as well as identification of the possible leverage points within that system. Leverage points can include places to improve information flow, organization goals and structure, corporate mindset or organizational paradigms, and global paradigms (Meadows 2008). Leveraging calls for foresight and system thinking at multiple levels, from nano (individual) through micro (city, community, eco-system), and macro (national, international), to recognize that these system views are "nested" within each other (Sanford 2004). To properly understand the complexities and analyze the effects, we recommend Hagel's strategy of "zooming in and zooming out" (Hagel 2017). Hagel suggests initially focusing on the lowest level interactions and then "pulling away" in perspective to identify the system linkages and effects at higher levels. The understanding of the connectivity between the levels is necessary to understand the implications of external factors. It can inform possible actions that could engage with and influence each level and identify intended and unintended negative/positive consequences (Savage and Sales 2008). Scenario planning, therefore, is most useful when it embraces diversity and inclusion. Larry Page (in Vance 2015, 355) suggests a need to connect diverse disciplines to embrace diverse cognitive reasonings increasing innovative ideas:

> *"I don't think we're doing a good job as a society deciding what things are really important to do, I think like we're just not educating people in this kind of general way. You should have a pretty broad engineering and scientific background. You should have some leadership training and a bit of MBA training or knowledge of how to run things, organize stuff, and raise money. I don't think most people are doing that, and it's a big problem. Engineers are usually trained in a very fixed area. When you're able to think about all of these disciplines together, you kind of think differently and can dream of much crazier things and how they might work. I think that's really an important thing for the world. That's how we make progress."*

This emphasizes the importance of seeing things under different lenses. Otherwise, framing and analytical biases (e.g., applying narrow, non-diverse mental models) will reduce the range of insights and limit the power of creative processes and foresight. Steve Jobs, for example, in an article for Wired (Wolf 1996) mentioned that creativity is about connecting things in novel ways. This implies however, a great mastery of the underlying cognitive aspects of creativity (i.e., being comfortable with uncertainty and multiple viewpoints, letting the imagination flow and doubting just about everything). The Anticipatory Leader will want to be diverse in time perspectives and solicit past assumptions from stakeholders. Going back more than 10 years may be challenging because in today's world that is almost ancient history. Thus, it is useful to identify organizational memories for the trends, assumptions, and forecasts of a decade past. An example of an anticipatory question is: Given what we knew and thought over the past 10 years, including an awareness of the assumptions and trends we believed most important, how much did we plan for and exploit opportunities in the future? The leader could then follow with a seemingly much easier question to focus the attention on the present: What are the major current and emerging trends and our planning assumptions today? This question is suggested to be as broad as possible taking up a system perspective. With that foundation, the leader could guide the group through the creation of transition scenarios, again not to predict or forecast, but to understand the different paths to the futures which have different characteristics. Hence, we see the need for multiple disciplines and viewpoints.

7.0 Contingency mapping yields agility to move between alternatives

Before we present the fourth practice, we want to offer a quick recap: The Anticipatory Leaders commit to a proactive mindset, rather than a reactive one. They apply creative and futures thinking to understand and hypothesize organizational needs in scenario planning to determine the range of possible future environments. Consequently, they use system thinking to double-check system interactions and possible leverage points. After following this approach, the Anticipatory Leader should integrate the generated hypothesis with trends understanding, insights creation, and vision recommendations. The results are then integrated into an actionable roadmap to achieve the vision.

Contingency mapping is our fourth foresight practice. It is a straightforward, but not necessarily simple, process that is difficult to execute without an anticipatory foundation. This involves the creation of future scenarios and backcasting from the future scenarios to the present (considering different ways the future might unfold and the different contingencies to adapt, respond, and shape) (Vettorello et al. 2020a). The Anticipatory Leader is aware that even with VUCA-Future and forecasts, the next several years are likely to hold new challenges and alternative futures. Some futures can be shaped with innovation and effective strategic planning, while others may be better handled with developing a contingency mapping. Regardless, the path to the future will not be linear demanding alertness to changes and calls-to-action to create adaptable future-ready strategies. By doing so, organizations can drive organizational strategy in a more deliberate and target-oriented manner, dependent on the actual circumstances.

To design a contingency map, the Anticipatory Leaders collaborates to create implementation paths subject to each scenario. The paths can be shifted and adapted as conditions change. This may even call for the creation of more and different scenarios or paths as a means to better understand how the emerging future influences planning and execution. Contingency Mapping uses Futures Thinking, Scenario Planning, and System Thinking to hypothesize contingent paths. Figure 7 offers a way to understand how contingency mapping that includes emerging conditions and scenarios could support strategic execution.

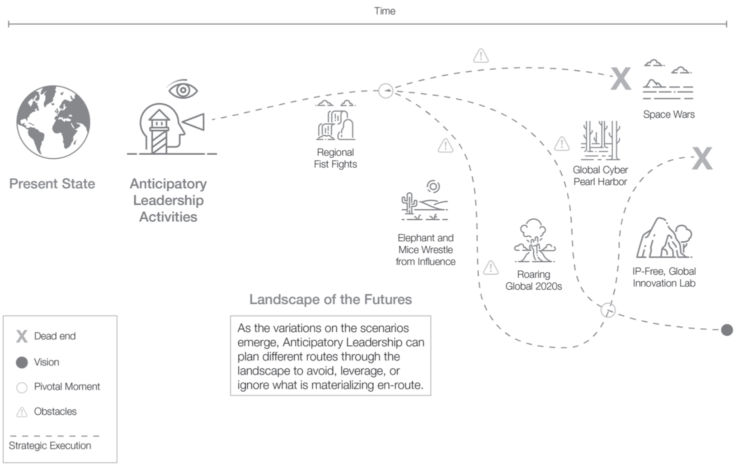

Figure 7. An example of a contingency mapping exercise driven by changing conditions.

Contingency mapping is a reminder that scenarios are not single future projections or goals but represent ways to think about the range of possible futures. Mapping enables leaders to understand that the complexity of the future (and present) calls for monitoring and adaptation. Just as a sailboat crew compensates for the everchanging winds, the leader anticipates and adjusts the corporate course into the future. Finally, contingency mapping highlights that the route to the future is not linear.

8.0 Anticipatory Leadership: An invitation to proactively explore futures

In this book chapter, we have unpacked the key capabilities of Anticipatory Leadership: Futures Thin*king* (Hypothesizing futures), Scenario Planning (Narrating/Visualizing stories of the futures), System Thinking (Exploring the connectivity between and within futures), and Contingency Mapping (Building agility and enhancing preparedness in moving forward). We presented them as an integrated set of futures capabilities for the leader to use in defining innovative and adaptable strategies. This invites proactiveness to prepare for emergent conditions (Anticipatory Leader), rather than passively reacting to threats and opportunities as they appear (Reactionary Leader). By using the integrated future's capabilities, the Anticipatory Leader becomes futures literate knowing how to sense for and use the futures to an organizational advantage. We also emphasized the importance of framing which sets constructive boundaries to support the generation of future scenarios. The futures approach enables a transformation from a highly stressful environment with few options (VUCA-Present), beyond defensive reactions, to a more flexible, adaptive organizational capacity (VUCA-Future). Just as stress reduction for the human body improves health and resilience, removing the sources of organizational stress, what we refer to as FID (fear, indecision, doubt) and leveraging CEA (creativity, exploration, anticipation), can give anticipatory leaders a clearer view of possible futures to design more sustainable organizations. Figure 8 reflects the elements of the proposed Anticipatory Leadership style to support the transformation of the negatives of VUCA-Present into the positive potential of VUCA-Future.

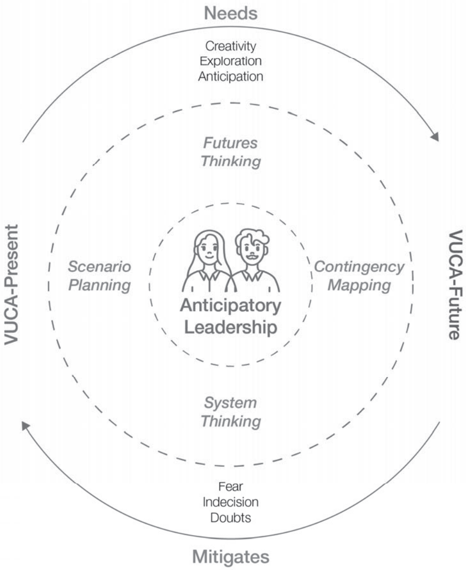

Figure 8. An illustration of the holistic proposed Anticipatory Leadership style with the integrated futures capabilities (Futures Thinking, Scenario Planning, System Thinking and Contingency Mapping). From VUCA-Present and its inherent FID – fear, indecision, doubt – to a VUCA-Future leveraging CEA – creativity, exploration, anticipation.

In conclusion, anticipatory leadership could enhance preparedness and facilitate the exploration of alternative options. Leaders in their organizations can gather insights to frame a preferred future to design more effective paths. The preparedness and resilience allow organizations to anticipate possible risks and exploit opportunities in a proactive, not reactive manner. This provides space for business growth, future-oriented strategy, and organizational flexibility. Anticipatory Leadership is a forward-leaning way to break the short-term focus and daily operational demands pattern. The focus is on longer-term rewards and organizational resiliency. With these integrated futures capabilities, we believe that the Reactionary Leader can become an Anticipatory Leader. The specific foresight capabilities which are readily available to leaders – Futures Thinking, Scenario Planning, System Thinking, and Contingency Mapping – could empower leaders to creatively prepare and bypass near-term threats to eventually become more effective in leading the organization today and into the future.

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From Earth to Mars and Back – Exploring Leadership Perspectives for the Future

Thomas Mengel

Abstract

This chapter demonstrates the need for co-creating futures-oriented approaches to leadership. Contemporary approaches and emerging post-contemporary concepts informing futures-oriented leadership are discussed. Works of science fiction are analyzed in terms of how they imagine leadership in the future. Finally, a conceptual model of post-contemporary leadership is proposed.

First, an exploratory review and content analysis of relevant literature from the interdisciplinary fields informing leadership is conducted. Second, a (computer aided) content analysis of works of science fiction provides descriptions of leadership in the future. Finally, the findings are integrated into the proposed model.

The review and analyses of scholarly texts and of science fictional works were effective in harvesting leadership concepts for the future. These concepts were integrated into a trans-disciplinary, multi-dimensional model of futures-oriented leader- and followership.

This chapter is the first attempt to explore and harvest contemporary and post-contemporary concepts relevant for leadership, to integrate them with respective images contained in science fictional writing, and to conceptualize a post-contemporary model of leadership.

Keywords

Leadership; followership; futures studies; foresight; science fiction; computer aided content analysis

1.0 Introduction

The present has become murky and the challenges we face are wicked (Thomas and Mengel 2014). Philosophers Avanessian and Malik (2016) see the present "under attack" and as "abyss of complexity" that can be overcome by two opposing principles: inclusion or exclusion. Inclusion aims for integration, diversity and change. Exclusion builds walls, fences, and (re-) establishes law and order. Similarly, Scharmer (2016) describes three potential and existing responses to current challenges: "paddling backwards", "muddling through", and "moving forward". However, he also poses that meaningful leadership paradigms need to go beyond re-establishing the alleged stability of the past or "muddling through" the challenges of the present. "Moving forward", truly innovative long-term approaches to leadership from and for the future are urgently needed (Mengel 2020).

In the following, I will first describe the methodological approach taken for this chapter. Then I will harvest contemporary leadership approaches to identify themes and approaches that may help us move forward. I will also discuss emerging, "post-contemporary" (Avanessian and Malik 2016) approaches towards leadership for the future. Finally, I will analyze selected science fiction works to identify futures-oriented leadership approaches that result from creatively imagining the future.

2.0 Methodology

I have used two different approaches for the major parts of this chapter. I will first provide an overview of these two approaches. Then I will describe how these approaches have been applied in this project.

2.1 Overview

For the identification and review of contemporary and post-contemporary leadership approaches I have conducted a selective and explorative, "backward snowball" search and review (Tranfield et al., 2003; White and Roth 2009) of relevant titles in books and journals. The resulting items have been analyzed using content and discourse analysis (Weber 1990; Neuendorf 2002; Krippendorf 2004; Phillips, Sewell and Jaynes 2008).

For the analysis and discussion of science fiction texts (Robinson 1992ff.), I also used content and discourse analysis as described above. Further, I have applied a computer aided content analysis – or Computer Aided Text

Analysis (CATA) – based on the methodology that has proven fruitful in our earlier research involving the analysis of contents of a multitude of texts (Couturier and Mengel 2008; Mengel, Cowan-Sahadath and Follert 2009; Mengel 2019). The latter should also increase validity and reduce human bias, particularly the confirmation bias resulting from an exploratory, personal approach.

2.2 Exploratory Literature Review

Tranfield, Denyer, and Smart (2003) labelled exploratory research and the review of relevant literature as "prospective", comparing it to experimental drilling in a mining operation. This approach seems particularly helpful, when the researcher has a "hunch" and tries to explore that further.

White and Roth (2009) described exploratory search "as an [emerging,] important research area with a focus on understanding and supporting searches that may result from ill-defined information needs, [or] require explorative search strategies" (vii). Learning is more important than finding in this approach. Because the problems investigated are largely unknown and the information space is wide open, the authors suggest that "[d]uring exploratory searches, it is likely that the problem context will become better understood by the searcher, allowing them to make more informed decisions about interaction or information use" (White and Roth 2009, 12).

Earlier, Bates (1989) had introduced another metaphor for this approach to information seeking as "berrypicking" [sic]. Explorative researchers start with a vague idea which they iteratively refine and translate into appropriate research strategies, including "footnote chasing, citation chaining, reviewing a journal series, browsing entire areas at different levels of generality, and browsing and summarizing works by author" (White and Roth 2009, 15).

What has been "excavated" then needs to be scrutinized and validated. First, I triangulated the results through different methodological approaches. In particular, I looked at science fiction to compare what I imagined to be relevant components of a model of futures-oriented leadership with what others, in this case I focused on Kim S. Robinson, have imagined in terms of how the future of human civilization and development might unfold. Second, I applied relevant quality standards from future studies (Kuusi, Kuhls and Steinmueller 2015; Inayatullah 2013). In principle, high quality futures studies need to be adequate to the content being studied; they need to meet scholarly expectations; and they need to be meaningful and impactful.

My main objectives in this research project were to 1) identify futures-oriented leadership texts, first discussing contemporary and then post-contemporary approaches; and to 2) find relevant texts outside of the leadership field that would offer relevant perspectives on post-contemporary, futures-oriented perspectives. Hence, exploring, prospecting, and berry picking as the main approach for my literature review seemed appropriate and meaningful. Mostly I focused on promising publications from the year 2000 onwards; only rarely I searched backward based on relevant and frequent references in more current literature.

2.3 Content and discourse analysis

For the traditional content analysis, I used the grounded theory approach (Strauss and Corbin 1994; 1998). I have coded the texts reviewed for relevant emerging thematic patterns and relating concepts and ideas; the latter I identified as relevant if they were future-oriented (located within paragraphs that contained the word ‘future’) or related to concepts relevant to leadership.

For the computer aided content analysis, I used version 4.5 of the software Leximancer (2018). I compiled all main texts by Robinson into one document, which I fed into Leximancer for analysis. I used the default settings for the discovery of concepts and themes, except that I added the terms “leadership” and “lead” as seed concepts to ensure it would be analyzed in relation to other existing terms. The resulting themes, concepts, and connections have been identified and presented in concept maps (see Figures 1 and 2). Further, quantitative analyses (frequencies, connectivity relations, probabilities, etc.) were performed by the software.

> *Concepts in Leximancer are collections of words that generally travel together throughout the text.... Aside from detecting the overall presence of a concept in the text, the concept definitions are also used to determine the frequency of co-occurrence between concepts. This co-occurrence measure is what is used to generate the concept map.... The concepts are clustered into higher-level ‘themes’ when the map is generated. Concepts that appear together often in the same pieces of text attract one another strongly, and so tend to settle near one another in the map space. The themes aid interpretation by grouping the clusters of concepts.* (Leximancer 2018, 9-12)

Further, I have triangulated and compared the results to outcomes from other approaches. To ensure quality outcomes and meaningful interpretations, my main questions where: Do the concepts harvested make sense in the context of futures-oriented leadership studies? If so, how do they relate?

2.4 Limitations

While providing opportunities for new insights resulting from integrating relevant interdisciplinary sources and unrelated fields of study, the chosen methodology comes with limitations also.

First, a “prospective” literature review based on exploratory searches and “berry picking” is not exhaustive, and it is not meant to be. As such, the results may not be as comprehensive as a comparable review of “all” the relevant literature. Hence, the conclusions offered and discussed in this chapter will have to be validated by a more comprehensive and wholistic literature review.

Second, the content analysis was performed by one researcher only. This may lead to some (confirmation) bias in analyzing and interpreting the results. While my constant and continuous awareness of this limitation may alleviate some of the problems, repeating the analysis and interpretation that I offered by other scholars or comparing the results with other interpretations in the future may provide confirming, rejecting, or even new perspectives in regard to our understanding of leadership for the futures.

Third, the computer aided content analysis, while more “objective” than a traditional, manual content analysis and thus fit to help further reduce the afore-mentioned (confirmation) bias, was conducted only on a limited set of science fiction works by one prominent author. Similar analyses applied to other works of science fiction may enhance and enrich our understanding of how science fiction can inform concepts of leadership for the futures also.

3.0 Contemporary leadership approaches

In the wake of significant changes early in 21st century, several innovative contemporary leadership approaches emerged, suggesting to Goldin and Kutarna (2016) the advent of a “New Renaissance” and the “eruption of genius”. Arguing that there are parallels between the effects of globalization and technological changes the (European) world experienced during the time of the (first) Renaissance and the societal challenges in the modern age, they suggest that leadership today faces similar challenges and that it would be warranted to optimistically call the current upheaval the “New Renaissance”, as long as we succeed in overcoming extremism, protectionism, and xenophobia by mapping new connections, by thinking ‘and’ not ‘or’, by reconnecting with values, and by seeing the bigger picture.

In his book “The Arts of Leadership” Grint (2000) suggests that “leadership might better be considered as an art than a science, or, more specifically, as an ensemble of arts” (27): philosophical arts, fine arts, martial arts, and performing arts. In particular, the author has established and coordinated the relationship between four areas of concern within leadership: 1) Who are we as leaders and followers? (6); 2) What do we want to be and do? (13); 3) How do we do that? (16); and 4) Why should followers follow leaders? (22). Grint has done that by discussing the invention of an identity (philosophical arts), the formulation of a strategic vision (fine arts), the construction of organizational tactics (martial arts), and the deployment of persuasive communication (performing arts).

In my own writings and together with colleagues I have introduced the concept of “Values-Oriented Leadership” (Mengel and Thomas 2004; Mengel et al. 2009; Thomas and Mengel 2014; Mengel 2021c). This approach was inspired by Frankl’s (1959-2007) work on Logotherapy and Existential Analysis and draws from earlier leadership theories, including authentic leadership, servant leadership, and transformational leadership (Northouse 2018). Values-Oriented Leadership emphasizes the significance of co-discovering and co-creating values and meaning for leadership and organizations. The concept focuses on holistic and creative thinking in the context of uncertainty. It argues for developing “adaptive capacity” (Heifetz et al. 2009), the foundation for intuitive leaps, and the ability to tolerate and sustain ambiguity. This capacity for adaptation and tolerance for ambiguity is based on the confidence in co-created and guiding values that leadership and organizations can orient themselves toward.

The volume “Emergent Models of Global Leadership” in the International Leadership Association’s (ILA) “Building Leadership Bridges” series has presented an “impressive array” of emerging diverse topics in thirteen essays and papers (Huber and Walker 2005). Key concepts discussed by authors from Russia, Europe, Australia, and the Unites States are as follows: shared leadership, leadership ethics, coherence, visioning, and citizen leadership.

Fairhurst’s (2007) work on “Discursive Leadership” offers a constructivist approach to exploring various concepts of discourse (e.g., Foucault’s (1972) “archeology of knowledge and the discourse on language”) and their potential significance for leadership theory and practice. While discourse scholars like Fairhurst engage in conversations with leadership psychologists, they “reject... essences because leadership is an attribution and, very likely, a contested one at that” (ix; emphases by author). In their analysis they unearth various elements of discourse in a way that may make them accessible for organizational participants and help practitioners to "coconstruct reality" [sic].

Heifetz (1994) seminal work on "adaptive leadership" was one of the first contemporary leadership models recognizing that leaders increasingly face problems that are complex and dynamic. His approach focuses on multifaceted situational challenges of the present that leaders need to respond to with a "systems perspective". His message that people need to address difficult challenges that require change through adaptation (Heifetz et al. 2009) is being heard as demonstrated by number of keynotes that he is engaged for and by the flocks of emerging leaders who enroll in his post-graduate leadership development programs.

While followership has emerged as significant second focal point in the elliptic field of leadership almost in parallel to Heifetz' adaptive leadership approach (for example, through Kelley's (1992) followership typology, which still is a strongly recognized approach), more recently Chaleff (1995-2009) and Kellerman (2008) have offered a prescriptive approach to followership by urging followers to become more courageous and constructively challenge "the leader" and by highlighting the underestimated importance of followers. While Chaleff's approach was developed based on the analysis of why so many follow toxic leaders like Hitler and on developing means to prevent this from occurring again, Kellerman developed her framework of five levels of followers – Isolates, Bystanders, Participants, Activists, and Diehards – from a political science perspective. Thus, the focus of leadership shifts towards its understanding as a co-created process where both leaders' and followers' behaviours interact and influence each other and the overall leadership outcomes.

However, in the light of significantly more complex and even faster changing environments, we need to move even further and think in the context of systems as suggested by the "Systems Leadership" approach (Senge et al. 2015). This approach catalyzes collective leadership with "commitment for the health of the whole" and invites the collective to see the larger system, to reflect, and to co-create the future. Yet, given exponential changes challenging contemporary perspectives and models, even adaptive and systems leadership approaches need to be diversified and potentially replaced by models that "connect big drivers of change" across systems (Mengel 2017) and that help participants develop from being adaptors to becoming actors and to "be the change" (Lorrance 1974).

4.0 Emerging post-contemporary approaches – towards leadership for the future

While we cannot predict the future, we can already discern emerging new challenges that require innovative and post-contemporary approaches. Further, already existing critical voices must be heard. Finally, before imagining the potential futures that lie ahead, we need to review and analyze emerging post-contemporary approaches that explore ways to bridge the gap between where we are (contemporary) and where we might be heading (post-contemporary).

4.1 Leadership Challenges of the Future

Only a few leadership-focused publications in recent years have explicitly addressed such challenges. These also served as starting point for the explorative search for additional sources.

In 2015 the International Leadership Association had invited scholars and practitioners to imagine what leadership might look like in 2050. In the resulting issue of the Building Bridges Series, thirty authors from Canada, the US, the UK, and from Australia have responded to the following questions: "How will we grow the future out of the present? How will we prepare people for the practices of leadership our children and grandchildren will need? What is our work, in our lifetimes, to build a scaffold for the next generations?" (ix).

Section I envisions leadership in 2050. Suderman and Foster (2015) use strategic foresight approaches to describe several scenarios in the context of people-oriented organizational development. In their scenario and model of "Murmuration Leadership" the authors draw from observing "a flock of starlings fly together as one. As they weave and dance through the air, their form changes and evolves but they remain visible as one entity. This leadership scenario mimics murmuration by blending many unique and complex parts into an overarching whole" (34). In their application on leadership, they focus on humanizing the workplace and on "we-leadership" (31). "Thoughtful consideration of scenarios," they conclude, will help arrive at "leadership agility" (37).

Future leadership drivers, issues and contexts including social justice, sustainability, geopolitical citizenship, healthcare and education are discussed in Section II. These set the stage for exploring integrated solutions in Section III.

Leadership scholar Jackson (2015) has suggested a multi-dimensional approach to leadership covering different spans of time and reaching into the future. He concludes:

> *Such is the 2050 leader: one who recognizes the importance of one's own physical robustness, emotional resilience, psychological complexity, flexibility and focus, philosophical grounding – even spiritual connection; to build and cultivate interpersonal relationships and high performing teams; to understand the interconnected parts of organizations – even communities (at every level). And to see each of these inter-connections in relationship to the long future, achieved through the short future, generating thoughts, making decisions, and taking actions through moment-by-moment focus and engagement, learning from every iteration in the short past, yet tapping into individual and collective histories as a significant resource for managing challenges now.* (257)

Introducing their quantum leadership model, Piel and Johnson (2015) build on Wheatley's (1999, 2006) earlier research into connecting leadership with the "New Science". They urge us to consider scientific paradigms resulting from chaos and complexity theories and to better integrate uncertainty and decoherence into leadership.

4.2 Critical Voices

Some critical approaches to leadership add perspectives that need to be considered for futures-oriented approaches.

Pfeffer (2015) discussed failures of recent leadership theory approaches and the leadership development industry. He claims that we are setting participants of leadership courses up for failure, if we present them with leadership as it could or even should be, and that we need to acknowledge the "facts" about leadership practice and develop a more realistic approach to leadership.

Further, Wilson (2016) explores the history of Western leadership thought and invites us to critically rethink leadership outside of our disciplinary silos and frame it as socio-political act. Based on her historical discourse analysis and "questioning ... the very ontology of leadership" she discusses leadership as a "constructed and fragile" phenomenon that "is fundamentally a social, political invention ... fluid, unstable ... – and hence open to reinvention" (10).

Finally, Gardiner (2018) explores feminist phenomenology and demonstrates how this approach can "enrich gender and leadership scholarship" (291). In particular, she engages with works by Hannah Arendt, Simone de Beauvoir and others to explore leadership as action and within gender hierarchy and queer contexts.

4.3 Overcoming the abyss

Some authors explicitly address the need to creatively overcome the "present abyss" (Scharmer 2016). With his "Theory U", the author invites us to do so by opening our minds, hearts, and wills and by embarking on a journey connecting our current self with our future emerging self. In his approach he urges us to move from a surface reaction to re-generating on a deeper level and to create "new thinking and principles [,...] new core activities and processes [, and...] new structures and practices" (Scharmer 2016, Figure 2.2, 29).

This approach very closely relates to the concept of "deep listening" and other recent contributions by indigenous leadership scholars, that indeed can meaningfully enhance our limited western perspective on leadership theory and practice (Voyageur, Brearley and Calliou 2015). In particular, re-storying and wise practices as informed by indigenous knowledge can help (re-) build community and trust. Thus, an integrated approach of generative and deep listening combined with re-storying, "invites work teams or communities to be fully present with each other and to identify what is happening and emerging in the moment. For leaders, it means getting out of the way in order to open a space in which genuine contact can be made. That space is a place of possibility where current and emerging needs can be expressed and explored" (location 133). Further, indigenous ways of knowing and of connecting with space and people can inform our understanding of and a joint development of "living leadership" (Kenny and Fraser 2012).

In "Homo Deus" the historian Harari (2015) asks: "where do we go from here?" (2015). In his response to his own question, he urges us to "think in far more imaginative ways about our future" and to "let go of our conditioning by the past". He claims that we need to develop responses to challenges resulting from upgrading homo sapiens to "homo deus" through "biological engineering, cyborg engineering, and engineering of non-organic beings" (location 769).

Philosophers Avanessian and Malik's (2016) claim that we live in a "speculative time structure" where "future happens before the present". The present is perforated and the "time complex" has been disturbed by atavisms and anachronisms; past and future merge eliminating the present (as space and time of resistance) and resulting in a new, modal, interconnected interpretation of time. They propose a concept of the "post-contemporary" in which they conceptualize transformative, speculative, poetic actions and pragmatics towards an "open future" instead of an "automated future".

Finally, leadership scholars and practitioners Elkington, van der Steege, Glick-Smith, and Green (2017) have presented their view of "Visionary Leadership in a Turbulent World". They suggest a new mindset (consisting of: ethical leadership based on universal ethics; resilience aiming at meaning-making; and flow-based leadership resulting in better decision-making), a new skillset (consisting of change management, innovation, and collaboration), and a new knowledge-set (consisting of systems-thinking, systems-coaching, and cultural intelligence). These will help us thrive, they claim, "in the New VUCA [Volatility, Uncertainty, Complexity, Uncertainty] Context". In particular, their focus on "meaning-making" as a means of strengthening resilience of communities and organizations for the future reinforces my own work on "values-oriented leadership" (Mengel 1999; Mengel 2004; Mengel et al. 2009; Thomas and Mengel 2014; Mengel 2017; Mengel 2019; Mengel 2021c).

5.0 Science Fiction: Leadership on Mars and beyond

"Stories are powerful. ... [They] have the power to change us on a fundamental level" (Zaid 2019, 5). Science fiction offers stories about the future and inspire us to imagine what different scenarios of the future might look like.

As an avid reader of various works of science fiction and also an emerging writer actively exploring this field, I became interested in how other writers would imagine the way leadership and followership might play out in their futures. I was curious whether their imagined futures might inform or corroborate models of futures-oriented leadership. Inspired by Peter Bowler's survey "history of the future" (2017) and Tom Lombardo's (2018) first volume of a more detailed review of works in science fiction in the context of futures studies, I analyzed how science fiction writer Kim Stanley Robinson (1992; 1993; 1996; 1999; 2018) imagined leadership to unfold in the future.

5.1 *Red Mars*

Red Mars (Robinson 1992) was the first volume of his Mars Trilogy. It describes the era of human colonization of Mars starting in the year of 2026. The main topics surfacing are conflicts, refuge, and the control of Mars by transnational companies from Earth. Key actors are Frank and John – often in conflict with each other – as well as Maya.

Aboard the large interplanetary spacecraft Ares, the first hundred colonists travel to Mars as part of a joint American-Russian venture. After describing the trip, the book focuses on the construction of the first settlement on Mars and of colonies on Mars' moon Phobos. Of specific interest in the context of this research project are the relationships between and debates among the colonists, particularly on terraforming the planet – making it more earth-like – and on forging the colonists' and Mars' relationships with Earth.

The "red" position, represented by Ann Clayborne's view that humans should not change Mars (or any planet) at will, is clashing with the "green" position, represented by Saxifrage Russell's (Sax) position that human life and presence per se already change(d) the planet and that it should be better appreciated, spread, and furthered. The United Nations Organization of Mars Affairs (UNOMA) authorizes terraforming and related actions including the release of subsurface heat and water, thickening of the atmosphere, and more closely connecting Mars with Earth via a space elevator cable. However, both Arkady Bogdanov and John Boone argue against Frank Chalmers, the leading American technician, and others that developments on Mars should not be limited by Earth's traditions and authority. The fact that John and Frank both romantically compete for Maya Katarina Toitovna, the Russian leader, exacerbates the conflict finally leading to the assassination of John.

On Earth, transnational corporations (transnats) increasingly take control of governments and diminish UNOMA's influence. Economical rivalries and restrictive policies – including limiting access to longevity treatment developed on Mars – lead to exponential immigration on Mars and in turn to a revolution launched by Arkady. While initially successful, exceeding violence by Earth troops and the challenges of a still not hospitable Martian environment lead to the bombardment of several settlements on Mars, which finally leave Arkady killed, the space elevator cut, a great flood – triggered by a nuclear detonation freeing groundwater – and most of the first hundred dead or having fled to a hidden refuge. As a result, the revolution dies and the transnats take control of Mars, while on Earth a devastating world war over scarce resources kills hundreds of millions and leads to police states restoring order and offering refuge to the transnats. On Mars, the remaining First Hundred (including Ann, Sax, and Maya) settle in the refuge called Zygote, hidden under the Martian South pole, and a new generation of humans is born.

5.2 *Green Mars*

Green Mars, the second volume (Robinson 1993), describes "terraformation" as a process of making life on Mars "earth like", including the growth of plants. The story begins 50 years after the conclusion of Red Mars and extends into the 20s of the 22nd century (2120s). Resistance and the resulting "Second Revolution" are the main focus of this volume leading up to increased political autonomy. Sax and, again, Maya play the leading roles.

The attack of the settlement Zygote by the United Nations Transitional Authority (UNTA) force the survivors, among them the First Hundred's children, called 'Nisei', to flee into an underground organization (Demimonde). Trying to escape the transnats' control, various disparate groups evolve, until they are organized through a representative from Earth's Praxis Corporation, leading to the 'Dorsa Brevia' agreement.

In the 2120s preparations for a second revolution are made. Sax infiltrates the transnats' terraforming project using a fake identity (Stephen Lindholm). Other characters are described in detail offering the reader a rich set of perspectives on Mars and the developments of human settlements from the point of view of the characters. For example, the Mars surface is being warmed up and another space elevator is built. Sax (alias Stephen) finally gets arrested, tortured and suffers a stroke, after Phyllis, a survivor of the events at the end of Red Mars, discovers Sax's true identity when getting romantically involved with him. The underground movement succeeds in rescuing Sax and Maya kills Phyllis in the process.

On Earth, an eruption of volcanoes underneath Antarctica leads to a catastrophic sudden rise in the sea levels and the ensuing flood and resulting chaos provides an opportunity for the Martian underground to free themselves from Earth's influence and seize control with minimal bloodshed. The remaining UN forces are forced to evacuate, and the Martian population finally can resettle in political autonomy and with newfound hope for the future.

5.3 *Blue Mars*

Blue Mars (Robinson 1996) completes the trilogy describing the transformation into transglobal harmony and security and towards spreading human civilization further through space and time (into the 2220s). Ann, Sax, Maya, and Nadia are the leading figures. It becomes apparent – Sax and Maya are living through literally hundreds of years – that progress in terms of longevity is one of the main themes of the trilogy.

Terraforming has now progressed to the point where water can be found on Mars in rivers and seas. The book almost seamlessly picks up where the second volume has left off, but it covers more temporal ground covering a full century following the revolution.

On Earth, heavy flooding leads to the downfall of the transnats and to the Praxis Corporation being a showcase for new, more democratic businesses. Mars now becomes the leader of the new system, offering universal healthcare, free education and food security. As a result, (illegal) immigration to Mars pushes Martian society to create new, asteroid cities and planetoids, illuminated and heated by a newly created mini-sun. With more scientific, technological, and production innovations, humankind starts the 'Accellerando' and spreads civilization further throughout space by colonizing various planets and moons light-years away using an interstellar spacecraft. This triggers a new wave of terraforming throughout space also.

The few people remaining of the First Hundred enjoy special status as living legends. Nadia is involved in leading a constitutional congress and a global government that provides general autonomy to settlements and cities while maintaining a central representative legislature and court system with authority in legal and environmental matters and with a strong representation of the earlier Red fraction. Although she does not enjoy politics, Nadia is elected as first president of Mars. She falls in love with another leading actor, Art, and in addition to collaborating in their leadership they also have a child together. Others introduce an innovative hybrid economic system integrating capitalism, socialism, and environmental conservationism. A new agreement with Earth allows them to send up to 10% of the current Mars population as new immigrants per year.

One of the particularly interesting intra- and interpersonal conflicts is the one that Sax (still recovering from his stroke) and Ann (depressed and suicidal resulting from various personal and political lost battles) experience. Sax represents the terraforming position, while Ann is a champion of the anti-terraforming section. When Ann falls into a coma during one of the conflicts, Sax initiates her resuscitation and a renewal of her longevity treatments against her will.

At the two-century mark (individual age of some actors) the longevity treatments lose effectiveness, particularly regarding memory functions as demonstrated by Maya. People at that age also are more susceptible to fatal conditions, leading to "quick decline" of the older generation. The remaining twelve of the First Hundred almost all take a new medicine developed to restore memory; Maya declines the treatment. The treatment was so successful that many remember developments and events in the past affecting the present and future that they had forgotten. For example, Sax and Ann remember that they had fallen in (and following their conflict over different positions on terraforming have fallen out of) love even before leaving earth; they fall in love again and reconcile their differences. Together with Maya and the rest of the Martian population they cooperate to avoid another impeding war over potential new and massive illegal immigration from Earth. As a result, at the end of the trilogy harmony and security on Mars seems more likely.

The latter was not offered to us as an easy answer or as a result of wishful thinking. What makes this trilogy so compelling in this context – as indicated by the detailed summary of how events unfold and development on Mars, Earth, and beyond is imagined by Robinson – is that over three volumes and a couple of hundred years human life is described in a way that makes it feel very "real": conflicts and competitions affecting human relations; intra and interpersonal dynamic playing out in various interactions; individuals, teams, and organizations cooperating or fighting over resources, power, and decision-making. Further, while sometimes individuals (or organizations) appear in the lead or demonstrating the qualities of a heroine or hero, over time different people claim or are assigned power and control. The leadership dynamic presents itself as a constant flux of roles people play and the power they hold. Over time, this dynamic is presented as a somewhat level playing field of "equal opportunities", diversity, and equity. Harmony and security result from "letting" this "play out" as per the hopes of the author.

5.4 *The Martians*

The Martians (Robinson 1999) further explores longevity and other themes in this additional volume, containing a collection of short stories spanning the whole timeframe of the Mars Trilogy (2026 – 2220s). Further, some stories explore alternate developments outside of the trilogy's focus on colonization; this approach – in addition to the detailed description of the unfolding "stories" in the trilogy – demonstrates the powerful opportunity that (science) fiction offers to explore different "what if" scenarios. The main themes investigated in the stories of this volume were the power of transnational corporations (transnats), the democratization of transnats, the genetic engineering (adaptation and side effects), and longevity (including survival and psychological effects on memory loss, personality change, mental instability, and existential boredom).

When feeding the three volumes of Robinson's trilogy (1992-1996) into Leximancer (Leximancer, 2018) for the computer aided content analysis, various concepts and relationships between them emerge. Adding the terms 'lead' and 'leadership' to the concepts was the only manipulation of the system, to ensure these "seeded concepts" are considered and placed in relation to other important concepts. Other than that, the default settings of the Leximancer software have been used.

The concept of leadership is related to various actors (including institutions on Earth and Mars, Frank, Maya, John, Ann, Sax) at different times and in different contexts. The main themes linked to leadership are (in order of counts): 'people', 'work', 'trying', 'things', 'life', 'power'. Relevant word-like concepts highlighted are (in the order of counts): 'understand', 'security', 'follow', 'plan', 'others', 'system', 'voice', 'group'.

The findings from the analysis indeed well support a model of egalitarian, shared, distributed, and changing leadership. Leadership of the people is a focal point among the emerging concepts (figure 1), where teams, community, and relationships between every person play a major role as indicated by the key connections between the concepts. For example, quotes linked to the concepts of 'people' and 'leadership' (there are 1497 altogether presented by the computer aided analysis; the highest number of quotes linked to any theme indicating the significance of this particular combination), as per the computer aided analysis are: "'We could tell,' people said"; "people can see, and choose"; "people hold the value"; and "many people advocated".

Figure 1: Computer aided content analysis of Mars Trilogy using Leximancer (concept map – focus on "people" concept)

The additional volume of *The Martians* further explores various "what if" scenarios of particular themes as discussed earlier. It adds the perspective of leadership as explorations to the vision of leadership for the futures. Further, this book demonstrates Robinson's awareness that there is not one future to describe or predict, but various futures to explore. That speaks to the quality of his explorations in the context of futures studies' quality standards (Kuusi, Kuhls and Steinmueller 2015; Inayatullah 2013).

5.5 Back to Earth

What makes Robinson's science fictional texts particularly intriguing in this context is that the author is still actively writing, not only in the fictional realm, but also as essayist in the political arena. In one of his more recent texts Robinson (2018)[1] comments on political economy and the climate

[1] Robinson's most recent opinion piece about the Coronavirus and his novel *The Ministry for the Future* are discussed and referenced in other chapters in this book (Mengel 2021a; Mengel 2021b).

crisis and feeding this text into Leximancer (2018) produces the following graph (Figure 2):

Figure 2: Computer aided content analysis of Robinson (2018) using Leximancer (concept map – focus on "people" concept)

'People' emerges as the most important concept in this content analysis also. They are involved both in the creation and potential solution of the crisis. "It's quite possible we could trigger the sixth great mass extinction event in Earth's history, a catastrophe that would inevitably hammer human civilization and endanger billions of lives. Even rich people will be affected — there'll be no escaping, not even in New Zealand, not even to Mars" (Robinson 2018, 2). His intention becomes clear in the conclusion he offers in this text, which may serve as his prescription for leadership and followership today as well as for the future: "We all crave meaning in our lives, and by a strange twist of fate, a very meaningful project has been given to us: Prevent a mass extinction event, and build a better world for the generations to come" (Robinson 2018, 6).

6.0 Proposal of a Model of Post-Contemporary Leadership

Drawing from and integrating these emerging paradigms and concepts, I propose a trans-disciplinary model of *Post-Contemporary Leadership (PoCo)*, which may also serve as blueprint for a prescriptive model for leadership and followership for the future. This model can be imagined as a complex and highly adaptive system floating in the multi-dimensional time-space (dis-) continuum (Figure 3).

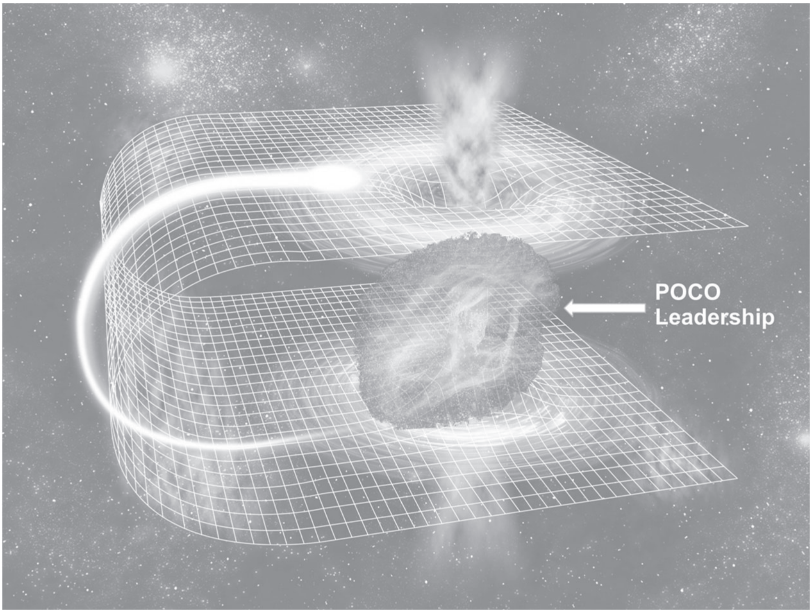

Figure 3: Adapted photos credited to: Shutterstock.com (wormhole_25016035; licensed download) and Ivan Dimkovic (https://i.ytimg.com/vi/PM_gTOm9fgk/maxresdefault.jpg; "fair use")

This conceptual model can be characterized by the following co-existing values, states, and modes, spread over nine different dimensions:

1. local – global – trans spatial
2. intra – inter – trans personal – trans gender - transhuman
3. past (future) – present (past) (future) – future (past)
4. claim – enable – fail – sustain– disclaim
5. disruptive – poetic – co creative – synthetic – integrative
6. dynamic – fluid – elastic – plastic

7. emergence – design – change
8. structure – process – influence – relationship – system(s)
9. resisting – following – participating – facilitating – leading

Leadership agents and artists of the future – and for the future –, encompassing both leaders and followers in the more traditional nomenclature, will dynamically and artistically move in this multidimensional space, discovering, exploring, and enacting various (or all) of these values, states, and modes at different (or all) times, oscillating between various degrees of agency. As demonstrated by Kirkpatrick's (2015) analogy, "[t]rapeze performances are a good metaphor for [that kind of] leadership, as so much of the work is inviting people to let go of what they know and to risk uncertainty, in the belief that something good is waiting for them".

Examples of PoCo Followership and Leadership attitudes, skills, and behaviours can be described as follows:

- Imagine the future, act globally, consider the local; identify and orient towards values shared by all stakeholders;
- Empathize with and consider on all levels and from all perspectives; shared decision-making, problem-solving, leadership across human and non-human systems; focus on relationships and relational aspects;
- Imagine and consider non-linear developments and coexistence of often paradox phenomena;
- leadership as risky choreographic artistry;
- open minds by disrupting the "traditional" while creating and integrating the unexpected;
- move, shake, and shape – at different times and different spaces or anytime, anywhere;
- dance the dance of followership;
- multi-level and multi-dimensional follower- and leadership; and
- oscillating between various modes of participation.

These examples and the underlying approach may help various communities exploring meaningful futures together, helping all of us co-create "The Future We Want" (United Nations 2020; see my chapter on "Exploring Meaningful Futures Together" on how this can be integrated into a comprehensive model).

7.0 Conclusion

The concepts of futures-oriented leadership harvested in the explorative literature review and content analyses as well as the suggested model of post-contemporary leadership are both adequate and relevant to the content being studied: leadership for the future; they meet scholarly expectations in terms of a well-defined methodology; and they are meaningful and impactful in terms of a model that can guide futures-oriented leadership education and development. As such, I argue, the methodology used, and the results presented are well within the requirements for a high-quality futures-studies research endeavour.

While human settlements on Mars – and even human travels to Mars – might be "way out there", considering and moving towards a highly dynamic, participative and multi-dimensional leadership model for the future is not. Key elements of this model already exist in contemporary and post-contemporary approaches to leadership (Mengel 2020). Learners in my courses already successfully engage with futures and the values-oriented models of leadership, and this is only the beginning (Mengel 2019).

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The Six Pillars of Future Intelligence Leadership: A novel framework for developing cognitively enhanced, future-ready leadership

Tyler Mongan & Kevin Reddy

Abstract

The human brain's ability to think about the long-term future provides a unique advantage not shared by other animals. However, leadership often fails to apply this natural ability to its full capacity and consequently limits organizational potential. Research has shown that enhanced foresight capacity and capability results in increased organizational growth and profitability (Rohrbeck et al 2018). This correlation highlights the importance of developing leadership future intelligence.

Just like cognitive intelligence and emotional intelligence, future intelligence is grounded in the natural sciences and is a skill that can be developed to enhance leadership cognitive and emotional capabilities. Cognitive neuroscience research proffers that the brain utilizes several distributed systems for accessing information for developing future goal-frames (Baars, 1997). Content from distributed neural systems enters a workspace of the brain, competing and collaborating to allow a dominant goal-frame, or future-frame, to emerge. This dominant frame determines what futures are possible, probable, preventable or preferred, and what content is relevant for developing strategy and making decisions.

Synthesizing this neuroscience research we propose a novel framework for future intelligence. The framework has six pillars: (1) *context* (mindset and physiology), (2) *past* mental models and memories, (3) *present* perception, (4) *focus* and attention, (5) e*valuation and values* (6) *future* anticipation and scenarios. By understanding and applying this framework leadership will

enhance their future intelligence and increase the capacity and capability for strategic foresight and decision making.

Keywords

Leadership; leadership development; future intelligence; strategic foresight; anticipation; cognitive capabilities; neuroscience; cognitive architecture; cognition; values, focus; collective intelligence

1.0 Introduction

Facing an uncertain, complex and exponentially changing future, the capability and capacity to anticipate the future has become increasingly important for leadership strategic decision making.

However, Godet brings to light, “Anticipation is not widely practiced by decision makers because when things are going well, they can manage without it, and when things are going badly, it is too late to see beyond the ends of their noses. Fast action is already urgently required! Yet reaction is not an end in itself. Although desirable in the short term, it leads nowhere if not directed towards the firm’s long-term objectives.” (Godet 2000, 3-22)

Thus, prospective, or foresight, practices are often neglected and the horizon of the future is restricted to quarterly reports, or yearly goals at best. As many foresight experts and practitioners will admit, even when leaders acknowledge that foresight is a critical component of organizational success, they struggle to find a place for it in the strategic decision-making value chain.

Interestingly, neuroscience research demonstrates that a key component of conscious and subconscious strategic decision making is the brain’s ability to imagine future possibilities, explore alternative futures and anticipate the most likely scenarios. Foresight is not only an innate ability of the human brain, it provides essential content that feeds into a global workspace (GW) for deciding the dominant goal-frame for future action (Baars 1997, 292-309). But foresight is not the only content that is important for preparing the brain for the future.

A synthesis of the cognitive architecture workspace reveals five sources of content; (1) *past* strategies, (2) *present* perception, (3) *focus,* (4) *evaluation and values*, and (5) *future* scenarios, alternatives, and anticipation (Dehaene, Changeux, and Naccache 2011, 55-84). Foresight is not just about utilized processes or tools to explore the future, rather it is about understanding the neuroscience of information access which informs the brain what is possible, probable, preventable, and preferable in the future.

Within this cognitive architecture framework, neglecting to engage in foresight triggers the brain to weigh other sources of information more heavily, placing unnecessary constraints on future possibilities. If leadership wants to optimize the ability for individual and collective strategic foresight, then it is essential that they understand the workings of this framework and how it can help teams and organizations build futures. Just like cognitive intelligence (IQ) and emotional intelligence (EQ), future intelligence (FQ) is a skill that leadership can learn to develop and apply in the work environment to increase organizational growth and profitability.

This chapter proposes that a neuroscience-based approach to strategic foresight allows leadership to expand their capacity to deal with the uncertainty and complexity of the future. It also provides rationale for incorporating foresight into innovation, strategy, and decision-making value-chains. Further, a neuroscience based approach to foresight reveals the relevance and scalability of foresight practices across an organization, because an organization is a collection of brains working together to shape the future.

With this in mind, we propose a novel Future Intelligence Cognitive Architecture (FICA), grounded in global neuronal workspace model research which illuminates how the brain deals with complexity and uncertainty. FICA is not only a neuroscience-based framework, it is a tool to help future-ready leadership thrive in uncertain, complex and exponentially changing futures. Future Leaders will not only need to develop their IQ and EQ, they also need to cultivate an enhanced FQ. Understanding the application of FICA within the leadership landscape will help.

2.0 The Case for Future Intelligence

Humans take it for granted that we have the capability and capacity to explore the future. We not only think farther and deeper into the future than other animals, we can also explore “what if”, “if, then", and a sea of alternatives that might emerge from the unknown. But future thinking is not just an imaginative mental exercise. As Wendell Bell notes in his overview of futures studies, “Futures thinking is essential for human action. Reaction might be possible without futures thinking, but not action, because to act requires anticipation. Thus, images of the future (goals, objectives, intentions, hopes, fears, aspirations) are part of the causes of present action" (Bell 1996, 28-56).

Cognitive psychology supports this connection between foresight and action revealing that mental models of the future (possible, probable, preventable and preferred) determine the limitations and processes from which our nervous system can rally resources for action (Carrington, Combe, and Mumford 2018, 335-350). Understood in this way, foresight becomes much more relevant and practical to corporate and organizational leadership. The more effectively leadership can mobilize their teams to take action towards a specific future, the more successful the organization.

Beyond neuroscience, the capability of corporate leadership to develop foresight capacity ensures real-world results and long-term competitive advantages (Rohrbeck, Kum, Jissink, and Gordon, 2018, 1-20). According to research by Rene Rohrbeck, future-prepared firms outperform the competition in terms of profitability by 33% and capitalization growth by over 200% (Rohrbeck and Kum, 2018, 105-116). Further studies have shown that a CEO's decision horizon, how far they can look into the future and explore alternatives, impacts the balance between short-term profits and long-term value creation. "A shorter CEO horizon is associated with more agency costs, lower firm valuation and higher levels of information risk" (Anita, Pantzalis, and Park 2010, 288-301).

However, most firms are not taking this science and research seriously, resulting in failure to enact programs that develop leadership future intelligence. According to a Brandon Hall study, "50% of organizations said their leaders are not skilled to effectively lead their organizations today, and a startling 71% said their leaders are not ready to lead their organizations into the future" (Development Dimensions International, Inc. 2018).

One reason foresight might not be taken seriously is that it is typically a product of the academic and pop social sciences. The essential connection between foresight and action is often lost in the verbose and lengthy exploration of the future by academics, overly simplified by the "yearly top 10" ponderings of futurists, or compromised by the "50 year" social-political plans that never come to fruition. The solution is to free foresight and future thinking from the limitations of the social sciences and build a foundation for foresight in the natural sciences.

So what would it mean and what would it look like to anchor foresight and futures in natural science, specifically, neuroscience? The answers emerge from the work of Bernard Baars' Global Workspace Theory (GWT) and Stanislas Dehaene's Global Workspace (GW) of conscious and unconscious processing in the brain (Barrs, Franklin, and Ramsoy 2013, 200; Dennis and Honk 2004, 539–549). The fundamental idea behind these workspace models is that information from five distributed systems enters a workspace (or a blackboard) to provide the brain with content for dealing with uncertainty and complexity. In a non-linear process, localized information entangles and integrates to allow a dominant future-frame to emerge. The dominant frame is then broadcast globally across the brain to organize coherent action.

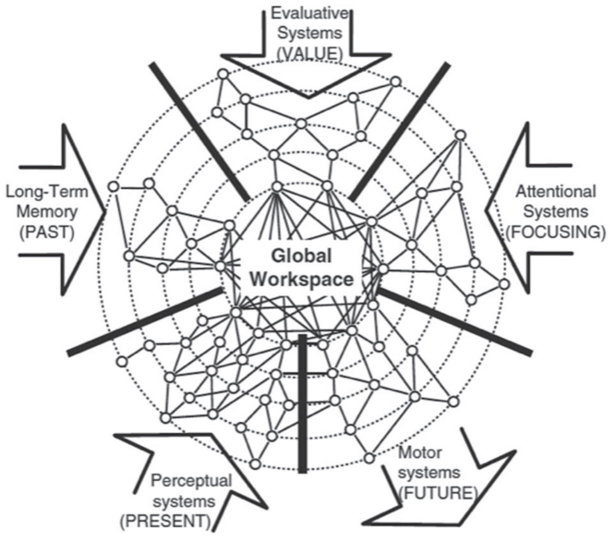

Figure 1.0. The Global Workspace Cognitive Architecture. (Dehaene, Changeux, and Naccache

The GW model reveals a future intelligent cognitive architecture that provides novel insights into how the brain works and what is essential for optimal foresight and future thinking that is action aligned. This architecture consists of six pillars that provide data and information that frames the future These six pillars are: (1) *context* that shapes the mindset and state of the physiology, (2) *past* memories and mental models that help apply lessons learned, (3) *perception* that increases access to new information, (4) *evaluation and values* that help align past and future identities, (5) *focus* that guides our attention to what is relevant, and (6) *anticipation* which predicts possible scenarios and prepares the body for action. The content from the six pillars arises through both subconscious and conscious processing to determine the dominant future frame for action. Ultimately, this future-frame shapes the context and content for determining the relevant strategies, plans, designs, innovation and decisions that will lead to the preferred future.

This framework proffers a neuroscience basis for foresight and futures thinking while also presenting leadership with practical tools to enhance cognitive capabilities and build advanced future-readiness. It also serves as a foundation for future intelligence (FQ) competency models. Just like cognitive and emotional intelligence, future intelligence will become an essential skill for the next generation of leadership.

3.0 Beyond the Constraints of the Past

In our view, future intelligence is concerned with three things; (1) the emotional and cognitive capability for enhanced foresight, anticipation and adaptability, (2) The ability to utilize tools, methods, and practices to expand future preparedness, visibility, and strategic decision making, and (3) the capacity to harness collective intelligence and collaborative action for scaling organizational future-readiness. Understanding the six pillars of future intelligence is foundational for developing these leadership capabilities.

However, even with a unique capacity to think about the future, humans are often constrained by the past. Throughout the developmental process, humans spend a majority of their time memorizing, recalling and rehearsing past knowledge and experience. Most developmental systems do not have a “futures thinking” component. Even at advanced levels of leadership development, little attention is given to developing the knowledge and skill for foresight. A survey by the Institute for the Future discovered that a major of Americans have a large “futures gap,” failing to think about the far future and ultimately leading to poor decision making and weaker locus of control (Institute for the Future. 2017). The 2019-2020 coronavirus pandemic revealed that even experts and leaders who spend a majority of their time thinking about the future and exploring alternatives, fall prey to the “futures gap” and fail to integrate foresight into strategy and decision making.

However, this makes sense because our brain is designed to be efficient, looking for the future to resemble the past. When the future does not resemble the past, it takes a lot of effort and energy to image and integrate new futures. For example, Bayesian models of goal-directed decision-making demonstrate that the brain understands the future in terms of probabilities based on past experience (Pezzuloa, Rigoli, and Friston 2015, 17-35). When faced with a familiar or novel situation, the brain refers to past experience to determine which future scenarios and outcomes are most likely to happen and which actions to prepare in response.

As Dr. György Buzsáki notes in The Brain From Inside Out, "the brain is a self-organized system with preexisting connectivities and dynamics whose main job is to generate actions and to examine and predict the consequences of those actions" (Buzsáki 2020, xii). Dr. Buzsáki further notes that actions do not need to be physical, rather actions can also take the form of thinking about the future or imagining scenarios and alternatives. With respect to foresight, one of the first actions is for the brain to develop a mental image of the future. However, it is important to understand that efficiency often demands that the brain look for an image of the future that resembles the past.

Consequently, in the Bayesian-brain-model, it is more efficient for the brain to weigh the value of the past pillar's mental models and memories more heavily when making decisions about the future.. However, in novel, complex, or uncertain situations, past models are often a poor predictor of the future. More information and data points are required to make sense of the unknown.

The six pillars of future intelligence provide an advanced framework for understanding how the brain can recruit new sources of content, decoupled from the past, to infer the future. A future intelligent leader not only utilizes past pillar memories, but must also learn how to apply their cognitive architecture to access new information through the other pillars of future intelligence: perceiving, focusing, evaluating, and anticipating. Before accessing new content, it is essential to understand how the quality and quantity of this information is determined by the context in which the brain is embedded.

4.0 Accessing Rich Content for Foresight

The brain is embedded in a body which is embedded in an environment. There is a strong correlation between the state of the embedded context and the ability for the brain to access content. For example, in a survival-based context the sympathetic nervous system can be activated to prepare the body for fight or flight. Within this context the brain will access content that is deemed relevant to enhancing survival, while access to irrelevant content is constrained. In this survival context the brain becomes highly efficient by defaulting to past instincts or behaviors that have been effective in the past. Thus, the past pillar dominates the flow of information.

Intuitively, this connection between context and content of the brain makes sense. Logically, it is further backed by research. The HeartMath Institute has demonstrated that increases in heart coherence have a positive effect on brain function including increased emotional control, more creativity, better decision making and increased autonomic nervous system balance (McCraty, Rollin and Zayas, Maria 2014). Further, a 10-year McKinsey study found top executives are 5 times—i.e. 500 percent—more productive in flow states (Mckinsey and Company 2013). Physiological context not only shapes brain content access, but also performance.

Because physiological states shape our ability to predict and act, they also shape our ability to imagine the future (Pezzulo and Rigoli 2011, 79). Certain states, such as a sympathetic or negative emotional state, force the brain to constrain the quantity and quality of content for foresight. This alters our understanding of what is possible, probable, preventable and preferred. Consequently, the context of our physiology impacts the ability to explore the unknown and develop strategies for responding in the world.

Research is demonstrating that there are physiological states that are more optimal for establishing a context for foresight thinking and collective intelligence. For example, coherent physiological states, characterized by enhanced brain-heart-respiratory-emotional synergy, seem to be a good starting point for establishing an optimal context for foresight (McCraty 2001). However, other states, such as flow, trust, and discernment, could also be engaged depending on the preferred outcome in context. After establishing a more optimal context for foresight, the brain increases the quantity and quality of information and data for determining a dominant goal-frame, or future-frame. The access to information is more balanced and not as heavily weighted by the pillar of the past. Further, in more optimal foresight states the brain is open to relinquishing bias, perceiving new things, bringing in new levels of awareness, has more evaluative power, and is willing to spend energy to explore novel and alternative futures.

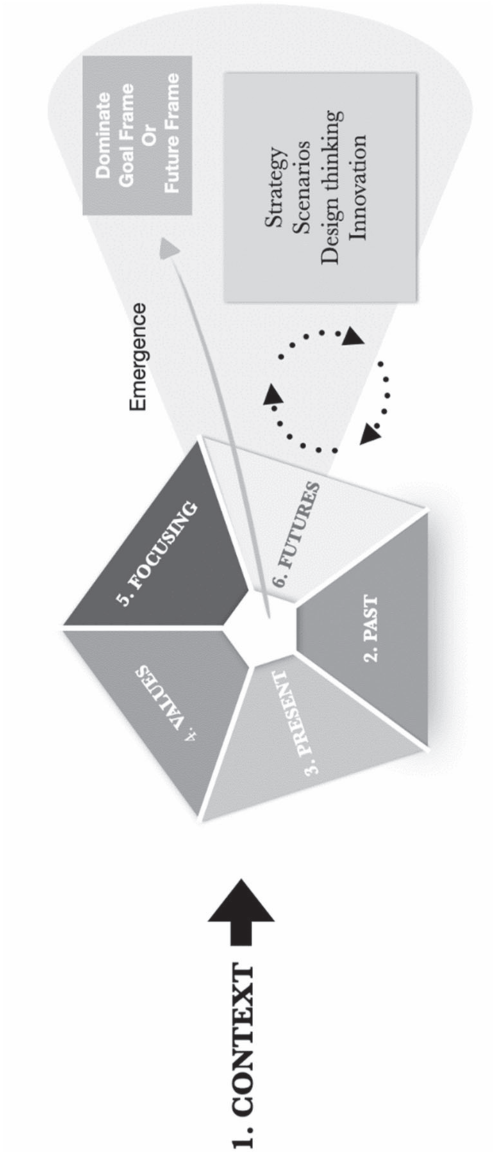

Figure 2.0. The six pillars of future intelligence and emergence of a dominate goal-frame or future-frame.

5.0 Five Integrated Systems of Future Intelligence

Within the future intelligence model five of the pillars have a unique neural system and cognitive action they are associated with. In an optimal state, we assume that the brain can engage all the systems and actions, while successfully integrating the information to allow a contextually relevant dominant future-frame to emerge.

Through a distributed representation of relevant information that is not just past pillar dominated, the brain can imagine more diverse and rich futures, while also exploring alternative futures with unique opportunities and risks. Although these systems and actions taken individually might not seem directly related to foresight, as a whole they encompass the essential components the brain's architecture requires for developing deep and highly relevant dominant future-frame.

These systems and actions typically operate at a subconscious level regardless of our awareness of them, but we can also envision them happening at a conscious level. For example, the act of questioning within the context of each pillar inspires the brain to discover answers. Some questions we might ask.

Past Pillar: Remembering (Long-term Memory System)
What models/bias from the past have successfully predicted future outcomes in similar situations?
What stories or metaphors from the past can inform the situation?
What states in the past have helped navigate the current situation?

Present Pillar: Perceiving (Perception System)
What am I, or we, sensing right now that might influence our foresight?
What unknowns are we not able to sense or need to sense?
How can I increase my ability to perceive and sustain perception?

Focus Pillar: Focusing (Focusing System)
What is relevant to focus on?
Where should I/we increase focus?
Where should I/we relax/focus?

Values Pillar: Evaluating/Valuing (Evaluating System)
What are the guiding core values?
What is the impact of these values on the future?
How will we determine we are aligned with our values?

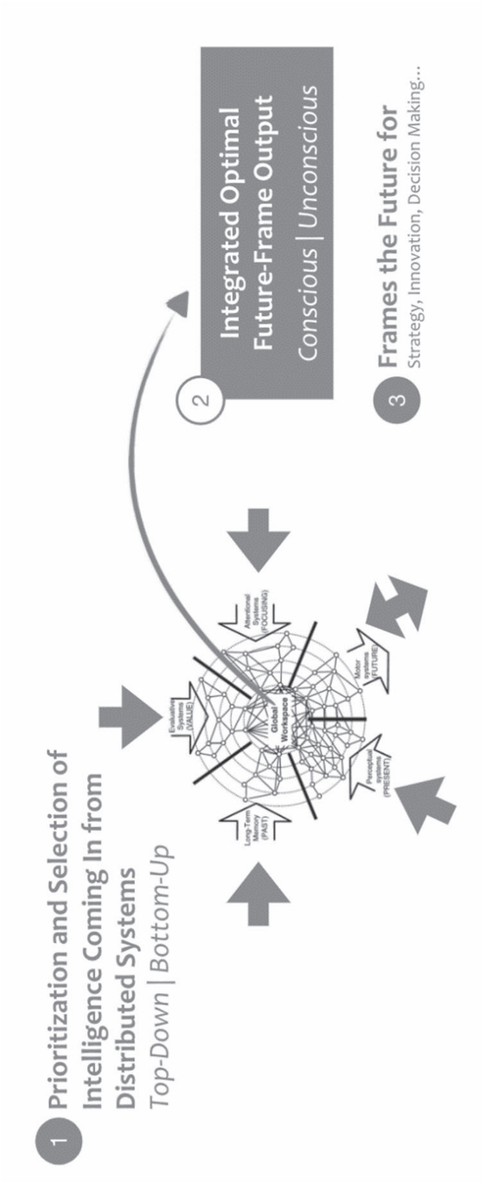

Figure 3.0. An integrated and distributed system of future intelligence frames the future for strategy, innovation and decision making.

Future Pillar: Anticipating (Anticipation System)
What are we prepared for?
What we are not prepared for?
What do we think is most likely to happen?

Through questioning, the brain is able to consciously access information from each of the five areas of content. As this information consciously enters the workspace of the brain, it can mingle with subconscious information to increase the depth and richness of the foresight. Questioning is only one example of methods that can be employed to enhance brain access to relevant content. Neuroscience-based interpersonal engagement practices and interpersonal communication techniques can also be utilized to enhance cognitive abilities for future intelligence. By increasing the capability and capacity for more optimal content to enter the brain's global workspace, a more balanced and integrated approach to exploring the future is realized.

6.0 Anticipating the future

As the brain integrates the content from distributed systems it develops a deeper perspective on what is emerging and what it wants to emerge in the future. This increases the ability to anticipate the future and prepare for the most likely scenarios. Foresight academics and professionals will be most familiar with the future pillar's capacity for anticipation and might be tempted to overweigh its importance. However, the future intelligence cognitive architecture suggests that foresight is only one component of the future thinking process.

Just as the Bayesian brain model might rely too heavily on the past, typical foresight models place more importance on the future. The results from traditional foresight practices, such as scenario development and trends analysis, need to be fed back into the brain's workspace. This allows content from the other pillars to weigh into the information dialogue before determining the dominant future-frame. This is especially important in times when the future is highly uncertain and complex. When the brain is provided with information from all the pillars, it can fill in the gaps to make sense of the complexity and uncertainty that exists in the future.

Thus, foresight and anticipatory methods provide one piece of information for strategic decision making, but not the full story. For example, a leadership team may develop future scenarios using a 4 box frame. The outcomes of the process need to be fed back into the future intelligence

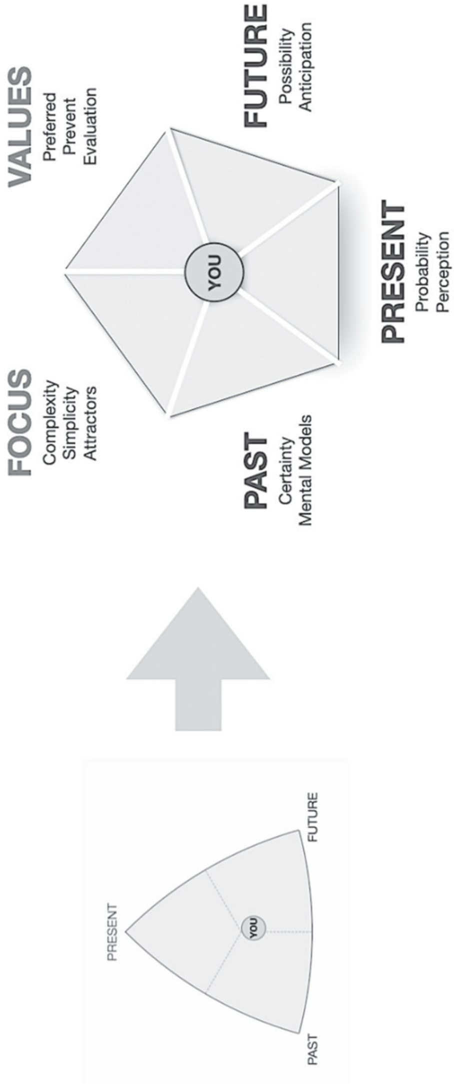

Figure 4.0. Moving beyond a linear understanding of the future to a more dynamic, neuroscience-based model for future intelligence.

workspace of the brain to consciously mingle with past experience, present perception, core values, and relevant points of focus. This integration of content provides a unique level of depths for developing strategies and making decisions. This model also provides a clear rationale for why strategy without foresight can lead to the development of irrelevant strategies (Lann and Yap 2017).

7.0 Summary: Six Pillars of Future Intelligence

A future intelligence cognitive architecture provides a novel approach for enhancing the capabilities and capacities for strategic foresight and decision making. In our summation, the research shows there are six pillars that are foundational to the architecture; (1) *context* of the physiology, (2) *past* mental models (3) *present* perception (4) *values and evaluation* methods, (5) *focus* and attention and, (6) *future* anticipation and foresight.

This future intelligence model highlights a few important things:

(1) The context of the brain influences the content that is available for foresight.
(2) Foresight is more than just looking into the future. Rather it is the integration of content from five areas of future intelligence: *past, present, values, focus, and future.*
(3) Foresight results are not standalone products, rather they need to be integrated back into the brain's workspace to help shape strategy and decision making; ultimately allowing a dominant future-frame to emerge.
(4) Future intelligence is a neuroscience-based capability that leaders can develop to increase organizational growth and profitability.

By consciously employing this cognitive architecture leaders can enhance the individual and collective ability to explore the future and develop more optimal future-frames to guide strategy and decision making. The framework also serves as a foundation for developing new tools and capabilities for managing complexity and uncertainty. As this future intelligence cognitive architecture is explored and utilized, it can ultimately serve as a basis for developing future-ready leadership and scaling future intelligence across an organization.

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AN EXISTENTIAL FRAMEWORK FOR THE FUTURE OF DECISION-MAKING IN LEADERSHIP

RAULI NYKANEN & ROGER SPITZ

Abstract

As a response to dealing with both market pressures and complex situations, leaders and organizations are looking for ways to improve decision-making. In the meanwhile, a whole data-science industry has emerged where practitioners refer to data-analysis and experimenting as the "scientific method" and aim to build a comprehensive decision theory and tools to guide decision-making. Through this technoscientific effort, the use of artificial intelligence (AI) is rapidly becoming ubiquitous. Yet, AI presents unprecedented challenges in understanding the benefits and shortcomings of technoscientific solutions. Where the potential benefits are often promoted, critical consideration concerning the limitations of AI follows with a lag. We will discuss the relationship between AI and decision-making with the aim of considering the epistemic context of AI decision-making in uncertain and complex environments in relation to leadership. To this end, we have adopted an existentialist framework through which we look at the epistemology of technoscience. Our framework uses Deleuzo-Sartrean existential philosophy to draw parallels between the emergent nature of Being and decision-making in complex environments, all in the context of advancements in AI. We contend that while AI is rapidly advancing in the value chain (which may increasingly provide insights enabling more informed decision-making), leaders should remain critical towards inadvertent reliance on prescriptive algorithms in decision-making.

Keywords

Leadership, decision-making, complexity, artificial intelligence, scientific method, emergence

Today we are surrounded by talk of an increasingly complex world. This idea is captured by the popularised acronym VUCA (volatile, uncertain, complex, ambiguous). Irrespective of whether the 21st century is indeed "the century of complexity"[1] and the degree to which this complexity may be increasing, one thing is certain: humans stand to benefit from insight concerning how to navigate complex situations. In the field of management, work that looks at dealing with VUCA has been conducted by—among others—Nathan Bennett and G. James Lemoine, Dave Snowden (Cynefin), and Nassim Nicholas Taleb (Incerto-series).[2] These authors have correctly pointed out that if our species hopes to make better decisions in what we perceive as uncertain environments and complex situations, then we need to gain a deeper understanding of the nature of such situations.

Within this setting, leadership is facing a direct challenge. As a response to dealing with both market pressures and complex situations, leaders and organizations are increasingly turning toward data to make decisions. There seems to be an implicit belief that everything can be solved by accessing enough data. A whole data-science industry has emerged where practitioners refer to data-analysis and experimenting as the "scientific method"[3] and aim to build a comprehensive decision theory to guide decision-making. Going a step further, some believe a communion between technology and science—technoscience—will save the world in the future, or, perhaps, as in the case of artificial intelligence (AI), take control over humanity in the not-too-distant future.[4] Indeed, looking forward, we may have to consider whether machines are set to take over decision-making.

With the above in mind, and considering the future, now more than ever is the time to start discussing decision-making from a more holistic and fundamental perspective. This requirement comes from both our current exponential acceleration of technology and the rise of a technoscientific thesis that recasts nearly all problems facing humanity as engineering problems (ergo the rise of STEM). It is the latter in particular which has prompted our investigations. For, while technology itself is a tool,

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[1] Stephen Hawking, (2000, January 23). Interview. San Jose Mercury News.

[2] The *Incerto* is a five-book series by Nicholas Nassim Taleb. It is a landmark work in considering probability and uncertainty.

[3] In the realm of business, the scientific method has recently been brought up, among others, by Eric Ries. See page 55 of Eric Ries, *The Lean Startup* (Great Britain: Portfolio Penguin, 2011).

[4] See note 31.

technoscience is subject to ontological, epistemological, scientific, and methodological questioning.

We aim to contribute to a deeper understanding concerning the nature of strategic decision-making in complex situations. In doing so, we will also examine the extent to which data is already providing AI the opportunity to augment decision-making, or even the future possible use of artificial neural networks to make algorithm-derived complex decisions entirely autonomously.

As such, we will place our question concerning the nature of complex situations—as well as technoscience itself—within what we call a broadly existentialist problematic, guided by Sartre's formulation "existence precedes essence."[5] By this, Sartre meant that the human being is an existence which is not defined by some supposedly essential nature, but that the essence of being human is its existence through which its essence becomes defined (through choice). However, Sartre's formulation allows us to leap forth from the confines of 20th century existentialism right into the question of being itself (i.e. ontology) such as was the purpose of Gilles Deleuze. In the wake of Deleuze, existence preceding essence can be understood as a question of genesis:[6] Is nature identitarian, atomistic, determinate Aristotelian essence, or is nature unknowable, intensive, indeterminate existence?

In order to allow the reader to more conveniently position our discussion in relation to decision-making, it is useful to consider Dave Snowden's Cynefin-framework (see figure 2). This framework is well known and can therefore serve as a common ground from which to proceed. Here we will only offer the briefest of introductions. In their 2003 paper, Snowden together with Cynthia Kurtz describe Cynefin as a "*sense-making* framework"[7] (italics in original), which is "phenomenological" insofar as its aim is to

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[5] The notion of existence preceding essence was originally given by Sartre in a 1945 lecture which later became the content of an introductory book to his philosophy, titled *Existentialism and Humanism* (*L'existentialisme est un humanisme*).

[6] Deleuze was a canonical 20th century philosopher whose work has been influential in metaphysics and other fields. Deleuze concerned himself with a wide variety of questions, but perhaps the most enduring one was the question of ontology, which he placed in the wake of Kant as explaining the relationship between being and receptivity (the genesis of a sensible self) while considering scientific knowledge. The University of Warwick's Miguel de Beistegui has even called Deleuze "the Kant of the twentieth century" (Miguel de Beistegui, *Truth & Genesis – Philosophy as Differential Ontology* (USA: Indiana University Press, 2004), 21).

[7] Dave Snowden, Cynthia Kurtz, *The New Dynamics of Strategy: Sense-making in a complex and complicated world* (IBM Systems Journal, vol. 42, no 3, 2003), 468.

keep "the human context foremost in our considerations."[8] Cynefin is a framework of four domains, with a fifth domain called "disorder" that serves as a temporary space for reflection concerning which of the four main domains an event belongs to. The four main domains are divided between "directed order" (i.e. order) and "emergent order" (i.e. un-order).[9] Order consists of the domains of *obvious* and *complicated*, whereas un-order consists of those of *complex* and *chaos*. Directed order is the atomist/physicalist belief that, given enough time, everything can be given determinable cause-effect relationships, at least in principle. Emergent order, on the other hand, defies the prescriptive and predictive models that are a hallmark of classical physics, claiming that nature is ultimately not predictable the way science once hoped for.

Between 2003, when Kurtz and Snowden published their article, and our current moment in time there has been a distinct development that has partly given rise to the considerations in this paper. While in their paper Kurtz and Snowden placed "the scientific method"[10] as belonging to the domain of order, between subdomains obvious ("known" in the original) and complicated ("knowable" in the original), we can spot a difference in the current use of the scientific method—one advocated by Eric Ries as the lean method—in the context of decision-making in the business and public sector.

We now see that the current "decision model"—advocated by many who believe data is the essence of decision-making—is one of "probe → sense → respond": experimentation in complexity (i.e. probing) permits the validation or invalidation of hypotheses. In the context of Cynefin, this then moves the reach of the scientific method further than originally suggested by Kurtz and Snowden (although Kurtz and Snowden did make allowance for complexity theory, and as such, for a degree of discernible pattern recognition, as a basis for their domain of un-order). The scientific method enters the domain of emergence (i.e. un-order). The consequence of this move is that the framework stops being only phenomenological and opens itself up to ontological and epistemological questioning. For when the reach of data is allowed to enter the phenomenological realm of messy emergence, this realm opens up to experimentation which, in turn, is characteristic of

[8] Ibid, 465.
[9] Ibid, 465.
[10] Ibid, 476.

the scientific method and therefore open to ontological and epistemological considerations.

Before moving on to consider the scientific method, we will here tie AI into our line of questioning. The role of AI in decision-making has grown increasingly, and there is a whole field of AI research and physicalist neuroscience that believes that, fundamentally, brains are nothing but code and algorithms, and machines can therefore obtain human-level consciousness.[11] This, together with ever deeper insights and pattern recognition at scale and with unstructured data, gives rise to the idea that machines may soon enough surpass humans in their cognitive abilities. Whereas AI is currently successful at the Cynefin domains of obvious and complicated where algorithmic thinking can rule, learning machines with neural networks are being trained to handle ambiguity through Bayesian probability with the hope that AI can become better at producing prescriptive insight from data in complex situations. It is mastery of ambiguous complexity that drives the idea of the singularity: machines becoming conscious. But now, as promised, we will have a look at the Popperian scientific method.

About the Scientific Method

As already touched upon above, the idea of the current data-based leadership is itself based on the method of testing (i.e. probing) hypotheses in order to first and foremost invalidate them in a process of validation. This is what Eric Ries bases the lean method on, and what Greg Brougham talks about within his discussion of the Cynefin-framework.[12] This is a method—known as falsificationism—that Karl Popper suggested to the question of scientific justification: how do theories relate to evidence? "What is the impact of experimental data on theories?"[13]

Falsificationism was a criticism directed towards the power of the hypothetico-deductive account of science according to which hypotheses give deducible propositions. Popper saw that—due to induction—the power the hypothetico-deductive account had was in some cases too great, for

[11] These types of arguments have been forwarded by Gary Marcus, Richard Feynman, Eric Drexler, and Thomas Metzinger.
[12] Greg Brougham, *The Cynefin Mini-Book – An Introduction to Complexity and the Cynefin Framework* (InfoQ.com/C4Media, 2015), 31-32.
[13] Steven French, *Science – Key Concepts in Philosophy* (London: Continuum, 2007), 43.

according to this method, "facts could always be fitted to the theory."[14] This is to say that through the process of empirical induction, new observations can be interpreted to fit an underlying theory. Popper saw this as a weakness and proposed instead that a truly scientific theory must state a hypothesis with predictions such which can be refuted by—in some cases even one—contradicting observation resulting in the falsifiability of the theory. This, however, is not as straightforward as it seems.

1. Falsificationism

The falsificationist view is confronted by the difficulty of the very act of falsification itself. There are many examples from science where the fact that something was initially falsified ended up proven otherwise by developing additional theories underlying the hypotheses. In such cases, falsification would have been a naïve error:

> [S]ome of the examples include Newton's theory of gravity and Bohr's famous model of the atom! Consider the former: as soon as it was proposed, it was noted that Newton's law was in conflict with observations of the moon's orbit, but rather than take this law to be falsified, Newton persisted in developing it and eventually it was determined that the observations were at fault (due to the poor accuracy of the instruments).[15]

Had Newton been a strict falsificationist, he would have taken his hypothesis to have been refuted. In this context there is an important insight known as the "Duhem-Quine problem"[16] which states that no scientific hypothesis exists alone. This means that any hypothesis typically rests on the accuracy of an additional number of other hypotheses underlying it. As the examples of Newton and Bohr illustrate, the underlying hypotheses are not always correct. This is a bundling of hypotheses into a network. If a hypothesis is falsified, this can potentially have ramifications for the whole network of supporting hypotheses.

2. Theory—Model—Observation

What is the relationship between theory and observation, and how does that link to action-triggers for decision-making? To tie theoretical statements

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[14] Ibid, 50.
[15] Ibid, 58.
[16] "Underdetermination of Scientific Theory", plato.stanford.edu, accessed July 26, 2020 https://plato.stanford.edu/archives/sum2020/entries/scientific-underdetermination/.

with observational results, models are used as mediators to simplify and idealise a theory. There is now a triptych relation here: Theory-model-observation. This relation can run top-down or bottom-up.

In experiments, theory describes phenomena, and phenomena, in turn, can be “constructed”[17] or “found”[18] through data. In this from-the-bottom-up case, we infer from data properties of objects and processes that belong to “a model of the phenomena.” However, if a model of the phenomena is inferred from data, the model “may become so important in a particular science, or field of science, that [it becomes] the focus of attention and the locus of activity, in the sense that rather than high-level theories doing the explaining and representing, it is the lower level models,”[19] as argued by Margaret Morrison and Mary S. Morgan. The problem here is that the explanation of the phenomena is circular.[20]

What is the lesson here? It is that theories model phenomena, and that phenomena may be modelled through data; “Data means more information, but also means more false information.”[21] These hypothesized models can be better or worse, but are never the world itself. Nevertheless, these models are often hypostatized—that is, erroneously believed to have an ontological

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[17] Ian Hacking. *Representing and Intervening – Introductory Topics in the Philosophy of Natural Science* (Cambridge UK: Cambridge University Press).

[18] James Bogen, James Woodward, ’Saving the Phenomena’, *The Philosophical Review*, Vol. XCVII, No. 3 (July 1988).

[19] Steven French, *Science – Key Concepts in Philosophy* (London: Continuum, 2007), 83.

[20] Steven French gives an example of this: if we were using a telescope “to make observations bearing on the relevant part of the theory of optics itself (the part that is used to explain the working of the telescope), then… we would just be running round an experimental circle and there is precious little security to be found in that.” In terms of methodology, AI research and neuroscience are fields largely running around this kind of an experimental circle insofar as the model of brains as a computer is hypostatized. French, *Science – Key Concepts in Philosophy*, 76.

[21] “Beware the Big Errors of ‘Big Data’”, Wired.com, accessed July 26, 2020, https://www.wired.com/2013/02/big-data-means-big-errors-people/. Taleb flags “silent evidence” as one cannot rely on experiential observations to develop a valid conclusion (the possibility of missing data, spurious correlations, and the risk of previously unobserved events have a tremendous impact), as well as “ludic fallacy” where so-called predictive models are based on platonified forms (simplified versions of reality). Taleb also warns against how one can misuse big data, including “rearview mirror” (confirmation vs. causality), an instance of poor reasoning as the narrative is being built around the data that ends up with a history clearer than empirical reality.

existence beyond their epistemological reach. This is a crucial insight bearing on the question of AI. Research in this field is often reductionist (i.e. physicalist), with an atomistic understanding of how nature works. The atomist worldview has, however, come under considerable strain since the advent of quantum physics.

The problem with falsificationism teaches that it is not easy to refute ideas since an idea may well be brilliant but look erroneous from the point of view of an underlying model/theory. Imagine you were collecting data that either invalidate or corroborate an idea. The data that will make this idea look good or bad is data that agrees, or does not agree, with an underlying theory. It is in this sense that data are not able to predict. What data shows us is models of patterns from past events; it never shows what the future will be. Stability exists only because we humans are capable—to some extent—of maintaining a structured and shared story that upholds a system, not because the system actually exists in itself.

Now let us have a look at how this plays out at the level of decision-making. Corporate history is littered with examples of leadership teams with a cognitive bias towards making poor decisions that extrapolated the past with linear predictions. The telecom operators had the option to innovate in over-the-top (OTT) technologies rather than relying on historic cash cows like text messaging and international calls. This wrong decision paved the way for new players like Skype, WeChat, and WhatsApp to lead with disruptive exponential technologies. In the same vein, Disney only woke up in 2017 when it acquired control of BAMTech for streaming technology, leaving Netflix dominate this space during many precious years.

Other companies faced even harsher fates, Kodak and Nokia being eminent examples. One illustrative example of attempting linear predictions is discussed by Greg Brougham:

> [L]ook at the demise of the Monitor Group. This was the company of Michael Porter (the father of strategic analysis) and used his market-analysis model. He based his approach on rigorous analysis of market forces that would result in a competitive advantage. It became apparent that while it could "help explain excess profits in retrospect, it was almost useless in predicting them in prospect."[22]

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[22] Greg Brougham, *The Cynefin Mini-Book – An Introduction to Complexity and the Cynefin Framework* (InfoQ.com/C4Media, 2015), 6.

To raise the shock factor, consider what Nassim Nicholas Taleb says (here in the context of the 2008 financial crisis): "the banking system, betting against Black Swans, has lost over 1 Trillion dollars (so far), more than was ever made in the history of banking."[23] An entire industry betting on the power of data-led prediction has failed so utterly that it would have been more profitable had it never existed! No wonder Taleb is outraged.

It is not that these financial institutions did not have theoretical models as to how they believed their respective environments worked, or that they did not collect and analyse data. The problem arises because data does not predict anything beyond the assumption of an idealised situation of an ongoing stable system. In one sense, these sort of data-led predictions are the bet of the turkeys before Thanksgiving. In such cases, data favourable to the underlying model is often given too much precedence (naïve falsificationism). So, although data is undoubtedly an important part of decision-making, the question of falsification is much more complicated since the underlying model may itself be subject to change.

The Future of Strategic Decision-Making

Decision-Making: No Longer a Human Exclusive?

Up to date, we find that decision-making for key strategic topics (like investments, research and development (R&D), and mergers and acquisitions (M&A)) is directed by humans—typically through C-level Officers, leadership teams, boards, shareholders, and governmental bodies—even if AI is increasingly used to augment the process. Looking into the future, however, the question could be not how much machines will augment human decision-making, but whether in time humans will remain involved in the process at all.

Through machine learning (ML) and natural language processing (NLP), the capabilities of AI in strategic decision-making are improving rapidly. Currently, AI is already a very powerful tool in descriptive and predictive data analytics. In the scale of data-processing, humans are obviously not able to match computers. AI is already utilized in such processing and has in some cases reduced what used to take hundreds of thousands of working

[23] "The Fourth Quadrant: A Map of the Limits of Statistics", Edge.org, accessed July 20, 2020, https://www.edge.org/conversation/nassim_nicholas_taleb-the-fourth-quadrant-a-map-of-the-limits-of-statistics.

hours into a matter of minutes and seconds.[24] A significant advantage AI has over humans is driven by stacked innovation platforms that can scale rapidly, wherein massive amounts of networked data provide ever deeper insights through signal detection, trend interpretation, and pattern recognition at scale and with unstructured data. This also allows non-intuitive information and connections to be unearthed through ML, while NLP is effective for unstructured extraction. This has resulted in machines moving up the decision-making value chain, as presented here:

[24] In 2017, software from J.P. Morgan completed 360,000 hours of legal due diligence work in seconds.

Figure 1.


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Artificial Intelligence in the decision-making value chain
DETECT AND COLLECT INTELLIGENCE
Weak signals
ML and NLP – Extraction
INTERPRET
AI's pattern recognition
Insights support decision-making
MAKE AND IMPLEMENT
Connect intelligence to decision
Heuristics-based today
Descriptive
Predictive
Prescriptive
DESCRIPTIVE DATA ANALYTICS
• Analytics-driven
• Historic & current data
1010101010l
ALGORITHM-AUGMENTED
• Supporting decision-making
• Predictive analytics
• Discovery & evaluation
• Accelerate "infinite" simulations
PRESCRIPTIVE ANALYTICS
• Human edge today
• Decide preferred option
• Action-Trigger
• Autonomous decisions
ML = Machine Learning
NLP = Natural Language Processing
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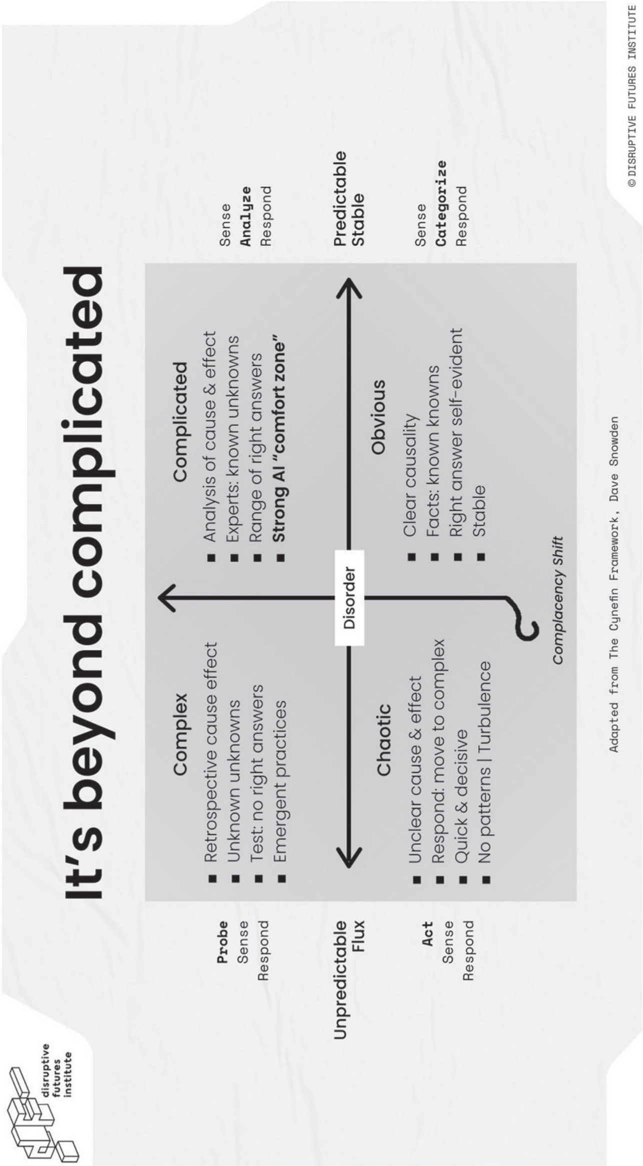
AI is already improving in predictive analytics, steadily making its way to the right toward prescriptive outcomes recommending specific options. Given the speed and scale of technological advancement, the question of both the potential reach of AI and our relationship with AI is a legitimate one. We do not even have to speculate on artificial general intelligence or a superintelligent machine to wonder whether machines might still come to challenge us. It is a question of understanding the nature of our own capabilities in relation to the nature of computational rationality.

When we talk about decision-making, we understand the nature of this process is not merely algorithmic—that is, a question of breaking a problem into smaller problems and solving the problem through solving the smaller ones (going through detailed instructions in a specific order in order to perform a specific task). In reality we face problems that do not have yes/no, right/wrong answers: we face situations where there is not even a range of "right" answers. Consequently, we face problems that algorithms cannot give an answer to. We have mentioned how since the conception of the Cynefin-framework by Kurtz and Snowden in 2003—in which they identified the scientific method as pertaining between the domains *obvious* and *complicated*–the reach of the scientific method is now being extended to include the domain of complexity:

Figure 2.


It's beyond complicated
Complex
Retrospective cause effect
Unknown unknowns
Test: no right answers
Emergent practices
Complicated
Analysis of cause & effect
Experts: known unknowns
Range of right answers
Strong AI "comfort zone"
Chaotic
Unclear cause & effect
Respond: move to complex
Quick & decisive
No patterns | Turbulence
Obvious
Clear causality
Facts: known knowns
Right answer self-evident
Stable
Disorder
Complacency Shift
Probe
Sense
Respond
Sense
Analyze
Respond
Unpredictable
Flux
Predictable
Stable
Act
Sense
Respond
Sense
Categorize
Respond
Adapted from The Cynefin Framework, Dave Snowden
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Using Dave Snowden's Cynefin-Framework,[25] the complex domain involves unknown unknowns, where there are no right answers and it is only retrospectively that one can establish cause and effect. In recognition of the non-algorithmic aspect of the nature of decision-making, AI researchers and computer scientists have adopted a framework of "rational belief" based on the "mathematical framework of probability theory."[26]

Currently, a dominant form of probability theory pursued in the development of machine learning is the application of the Bayesian approach to probability theory, which approach is then applied to a "new kind of decision theory"[27] called Bayesian decision theory. This is a theory the aim of which is to explain epistemic rationality by bringing together deductive and inductive logic. The idea here is to provide a framework of reasoning that could be shared between humans and machines by enabling machines to make valid inductions in situations where there are no correct answers. This reasoning would be achieved through humans and machines sharing a set of reasonable propositions out of which reasonable expectations can be inferred.

Like any theory, the Bayesian approach (i.e. model) has its own challenges. In all its sophistication, the Bayesian approach models probabilities by assigning statements a value between one and zero, where one is considered a true statement, thus yielding strong probabilistic value, and zero being the opposite, a statement which it is believed has no probability at all. Herein lies the problem. One must give initial conditional probabilities that allow for the determination of further—predictive—probabilities. In real life, however, initial conditions are subject to unannounced change: either new evidence or new theories come about. The question is how do you assign a new probability in a situation where the probabilities assigned to initial statements have changed due to the status of the initial statement being changed in relation to either new evidence or new theories. The question here is to what degree does the change in probability brought out by new evidence or theory change the relevance of further predictive probability.

[25] "A Leader's Framework for Decision Making", hbr.org, accessed July 26, 2020, https://hbr.org/2007/11/a-leaders-framework-for-decision-making.
[26] Kent W Staley, *Cambridge Introductions to Philosophy – An Introduction to the Philosophy of Science* (Cambridge, UK: Cambridge University Press), 106.
[27] "Bayesian Epistemology", plato.stanford.edu, accessed July 26, 2020, https://plato.stanford.edu/archives/fall2017/entries/epistemology-bayesian/.

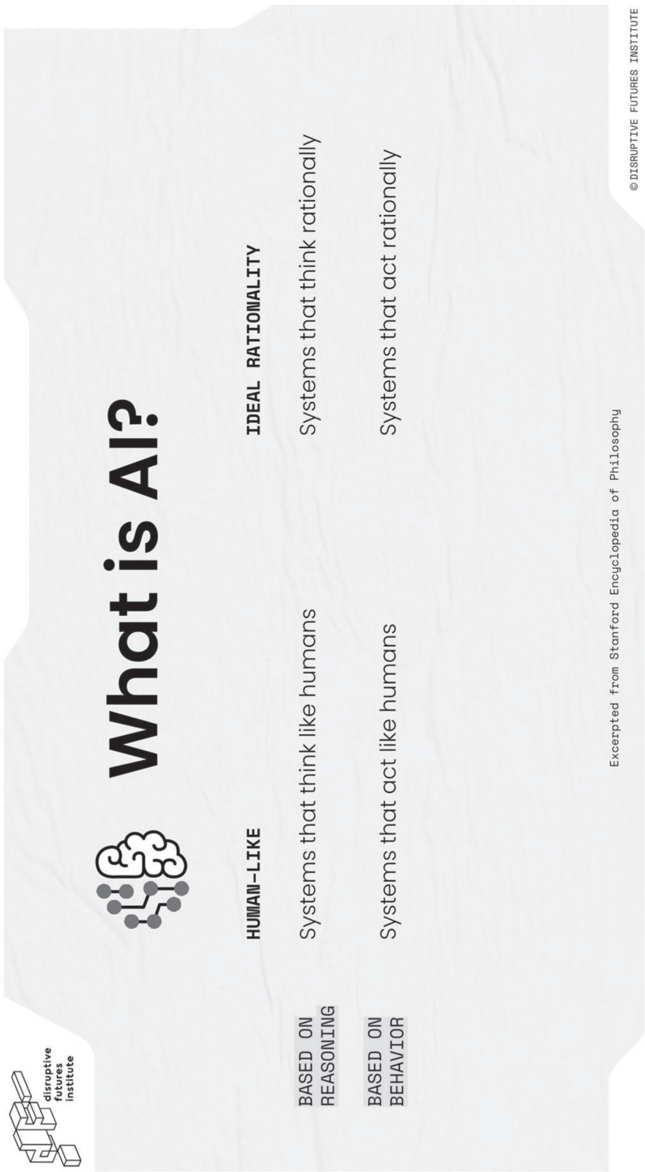
This change of conditions leading to a change in the relevance of statements and therefore the power they yield to prediction brings about a system reload at which point probabilistic rational belief breaks down. This means that an unpredictable event with extreme impact (e.g. Nicholas Nassim Taleb's *Black Swan*), or just simply a meaningful event, either not accounted for at all or not sufficiently accounted for, leads to any model being caught by surprise.

Without here going into speculation about how far from building a thinking machine that could rival humans we currently are, we will instead ask about what is at stake. Let's assume we manage to build a machine that seems to have rational reflective capabilities. It could model the world around it and formulate valid reasoning inferred from observations seemingly as well as we ourselves can, perhaps sometimes even better. In the context of strategic decision-making, however, why would we ever want to let such a machine make key decisions for us? It is only as proficient as we ourselves are, and since no one and nothing can predict the future, even in principle, why would we start following the ideas of a machine?

To open up this question, it is useful to think about the question "what is AI?" Russell and Norvig have formulated an answer to this question based on an extensive overview of the field, and while not definitive, it is widely accepted as representing the situation in current thought.[28] According to Russell and Norvig, answers to the question "what is AI?" fall into four types under two dimensions:

[28] Russell, S. J., & Norvig, P. (2020). *Artificial intelligence: A modern approach* (4th ed.). Prentice Hall.

Figure 3.


disruptive futures institute
What is AI?
HUMAN-LIKE
IDEAL RATIONALITY
BASED ON REASONING
Systems that think like humans
Systems that think rationally
BASED ON BEHAVIOR
Systems that act like humans
Systems that act rationally
Excerpted from Stanford Encyclopedia of Philosophy
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We see that the question of building a rational reflective machine can basically go two ways. It can be thought of as an imitation game (Turing) or, as Russell and Norvig advocate, a program of ideal rationality.

It is hard to see why one would want to give up strategic decision-making to machines deemed to think and act like humans. The idea, surely, is that in order to for us to relinquish key decision-making, machines should be better in making such strategic decisions than we are. On the other hand, apart from augmenting human decision-making, ideal rationality may be a questionable goal itself. The question is what rationality is, not what ideal rationality would be. Philosophically, the question of ideal rationality would have to come down to deterministic physicalist atomism—Laplace's demon.[29] If radically contingent chance is to exist, rationality is never secured. We view the idea of a deterministic atomistic nature as potentially untenable. So, what is rationality in our view? We see rationality as a form of human thinking, and as something relative. There exists no rationality in itself that humans can uncover like some architectural ruins. Rather, rationality is our own systematic building of a story relative to our experience. We are capable of sustaining a system of relative order in the midst of chaotic nature by telling a story in accordance with which we collectively organize our efforts.

It is in these organized systems in which rationality can rule. Hence, for example, economics, and the concept of homo economicus: the idea of rational action for a human wanting to make the best decisions in order gain as much benefit to himself as possible. It would be irrational for a human to act in any other way according to this model of rationality. The example of homo economicus illustrates well how rationality is simply only a construct. Rationality is a question of how to best bring about what is considered an optimal result in a specific system, the question of optimization always already a crude narrowing down and prioritization of goals to be pursued.

As such, we have to consider that where humans might forever have an edge over machines is in irrationality, and that this edge may be in principle and not because of challenges in technological implementation which might be someday overcome. It might well be that it is precisely because humans do not calculate algorithmically or through probabilities that we are able to, in principle, change on the fly and also use kinesthetic, emotional or other forms of human intelligence. We are not monomaniacally driven towards

[29] "Laplace's Demon", informationphilosopher.com, accessed July 26, 2020 https://informationphilosopher.com/freedom/laplaces_demon.html.

optimization, although our current form of shareholder capitalism would seem to suggest otherwise. We are able to relinquish a rational belief if we come to doubt its goals. There is no reason a machine either could or would be able to do so, as illustrated by Nick Bostrom in the paperclip maximizer thought experiment.[30] The above, of course, hinges on an anthropomorphic existentialist understanding of the "human edge." The rational optimization performed by superintelligent machines might well surpass our understanding and the reasoning and goals of such machines could well look alien to us. This would mean not that humans necessarily have an edge over machines, or vice versa, but that human thinking is simply non-compatible and is irrelevant from the point of view of the superintelligence and, in the case of humans in the paperclip maximizer scenario, the thinking of the superintelligence is oblivious to our being.

With a human-level decision-making machine we may be talking about a situation analogous to believing in magic or a creator—looking at an imitation sufficiently refined as to defy easy explanation and falling for the illusion. Yet, insofar as human objectives are concerned, it is not a given how such machines could surpass human ability. Conversely, insofar as a rational objective is concerned, it is not hard to see how a machine could surpass human ability.

Looking forward, with the continuing development of AI together with growing complexity, there are several scenarios concerning the future of strategic decision-making, including:

1. We see through the illusion: we understand the nature of AI and use it as a tool that enables us to probe deeper and which supports our decision-making by way of number crunching. We also exercise our agency in improving our own decision-making, so we can continue to add value when partnering with machines. Here AI is providing insights to augment and make more informed decisions, uncover new opportunities without replacing humans. This creates a symbiotic human-machine relationship.
2. We fall for the illusion: we fail to adapt to our increasingly complex world, instead finding ourselves marginalized or substituted in the key process of decision-making, which could be taken entirely out

[30] Bostrom, Nick. "Ethical Issues in Advanced Artificial Intelligence". In *Cognitive, Emotive and Ethical Aspects of Decision Making in Humans and in Artificial Intelligence*, Vol. 2, ed. I. Smit et al., Int. Institute of Advanced Studies in Systems Research and Cybernetics, 2003, 12-17.

of our hands. In this scenario, a prescriptive AI autonomously evaluates the range of potential options (consequences, payoffs…), assessing preferred decisions based on optimized returns (quality of outcomes, speed, cost, risk...) without necessarily having human involvement. This might also pave the way for new prescriptive decision-making models such as Decentralized Autonomous Organizations (DAO), with self-organizing collectives making optimized decisions; or even Swarm AI where infinite groups augment their intelligence by forming swarms in real time.

While the above illustrates possible futures for strategic decision-making, there have been many scenarios developed for humanity's future more generally in the age of AI,[31] including dystopian futures where AI takes over and we live in an authoritarian regime—the "singleton" as Nick Bostrom has envisaged.[32]

All this raises a question of choice: do we proactively decide on our position in the decision-making value chain or see ourselves being imposed a given spot? As stated in the beginning of this chapter, to make an active decision on our position in the value chain we need to understand the nature of our own capabilities in relation to the nature of computational rationality. The question we need to ask ourselves is: What is it that AI can and cannot do? The below figure lists areas where AI is of great assistance, but also highlights areas which are complex-chaotic where computational rationality may today fail to attain the human level:

[31] For more, see the twelve scenarios suggested by Max Tegmark in his 2017 book *Life 3.0 – Being Human in the Age of Artificial intelligence*. Others who have thought about such scenarios include Nick Bostrom, Stephen Hawking, Michio Kaku, Ray Kurtzweil, to list a few.
[32] See https://nickbostrom.com/fut/singleton.html.

Figure 4.


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Machines have an increasing role in the value chain
Robotic Process Automation
Contact Centers
...
Autonomous Intelligent Systems
(Move, Perceive, Learn)
Radiology
Robo-Advisor
Scientific Research
Drug Discovery
Draft Contracts
Compose Music
Dance & Choreography
Strategic Decisions
Governments
Boards
CEO, Management
Leadership
Optimization
Augmentation
Creativity
Complex Systems
Automation
Process & Production Efficiencies
Repetitive Tasks
Data, Training
Specific Domain(s)
Predictive Analytics
Pattern Recognition
Opportunity Detection
Curated Content
Trading Algorithms
Risk Reduction
Hyper-Augmentation
Catalyst
"Joint Venture"
Innovation
New Discoveries
Created Content
Experimentation, Judgement
No right answers
Unknown unknowns
Emergent
Overseeing Strategy
Managing Exceptions
Critical Thinking
= Strong AI Role
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Evolutionary Human Maturity: Relevance of Emergence

Anticipatory, Antifragile and Agility (“AAA”) in Decision-Making

In considering rationality we have mentioned that we should consider how what might be referred to as irrationality might give humans an edge over machines. This is an important consideration because insofar as AI is concerned, the aim there is to build an ideally rational agent the definition of which is that it be able to maximize its measure of performance.

Will we rise to the challenge of accelerating, disruptive, and unpredictable complex times? Because AI will certainly keep learning—even beyond complicated—as algorithms will no longer rely on only a range of right answers.

As AI continues to develop, machines could be given increasing autonomy in making strategic decisions on their own, without human supervision or input. If we fail to embrace our strengths and utilize our capabilities regarding decision-making, instead deciding to try our luck in a game of optimally maximizing performance to achieve some expected utility, we are not likely to prevail in terms of computational power.

The AAA-framework discussed here is derived from Roger Spitz’s work “The Future of Strategic Decision-Making.”[33] This is now an attempt on our part to research further, co-create, and share additional ideas concerning the existentialist future of humans and decision-making in a technoscientific environment. We believe the relationship between humans and technology is ultimately and fundamentally an existentialist question revolving around choice. With the rise of technoscientificism, we see the question of choice as being perhaps more urgent than ever before. It was Jean-Paul Sartre who so powerfully formulated the condition of being human when he said, “existence precedes essence.” By this, Sartre meant that the human being is an existence which is not defined by some supposedly essential nature underlying its being, but that, rather, the essence of being human is the existence through which its essence becomes defined through choice. Choice, for Sartre, was the forever reoccurring responsibility and challenge to affirm our agency on pain of becoming inconsequential and lost. So, it could be said that, for Sartre, our agency emerges through choice.

[33] “The Future of Strategic Decision-Making”, jfsdigital.org, accessed July 26, 2020, https://jfsdigital.org/2020/07/26/the-future-of-strategic-decision-making/.

We, however, depart from the phenomenological question of existentialism concerning human experience in that we take the proposition “existence precedes essence” as being a fundamentally ontological proposition. We follow in the wake of Gilles Deleuze whose canonical philosophy can well be formulated in terms of Sartre’s proposition. A Deleuzian formulation of existence preceding essence would run as follows: beings are individuations rising from existence understood as a virtual plane of immanence where no essences exist; beings are individuated existence the essence of which is pure *differenciated* becoming that attains temporal unity or homeostasis. Thus, we could say that for Deleuze, beings have a radically emergent existence which is not dependent on an underlying “horizon” of “organization”[34] from which beings are constituted like rearranging Lego. What occurs is a never-ending pure becoming of difference.

Both the phenomenological and ontological status of this Deleuzo-Sartrean existence brings about a revived existentialist question to challenge the atomistic Cartesianism underlying contemporary sciences looking to reduce consciousness to neurons and seeing the brain as a computer. Instead of classical clockwork physics, we believe we must accept and embrace the underlying indeterminacy which gives rise to emergence instead of the eternal return of archetypes that we count on for prediction.

We say: agency is an expression of the emergence of difference and self-conscious life is an individuation that expresses its being through choice.

We must keep on choosing. We must embrace emergence in all our decision-making. If we do not, we relinquish life only to follow a model of life which we allow to become a self-fulfilling prophecy. To remain relevant, humans must increasingly embrace becoming anticipatory and antifragile with agility. In what follows, we will have a look into each.

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[34] John Protevi, Deleuze, Guattari and Emergence, in *Deleuze and Science*, ed, John Marks, Paragraph 29, number 2, July 2006 (Edinburgh: Edinburgh University Press), 19-39.

Anticipatory

The leadership of companies, countries, and organizations are often not caught short by nigh unforeseeable surprises. Rather, it is frequently the case that leadership is rendered unable or unwilling to prepare adequately for, or listen close enough to, signals and trends that are discernable.

Taleb uses the famous example of *Black Swans*[35] to describe unforeseeable events with large impacts. However, in the cases of poor strategic decision-making leading to the demise of the likes of Kodak, Nokia or Monitor Group, the more apt metaphor is the *Gray Rhino*.[36] Gray Rhino events are highly probable and obvious, yet we still fail to respond, perhaps because we are in denial or pass the buck. We may diagnose the danger half-heartedly and then panic when it's too late. COVID-19 was a Gray Rhino.

To be more anticipatory, leadership teams need to learn to qualify signals and interpret the next-order impacts of change, connecting the shifting dots with action-triggers, while ensuring that they do not rely on statistical risk modelling that assume a stable and predictable world. Understanding the ramifications of exponential change (which moves "gradually then suddenly"[37]) is key, as the world is not a linear evolution from the past.

Despite recent challenges to Intel's strategy (activist investors and hedge funds, change of CEO), the company remains a noteworthy example of anticipatory leadership. Infused with the DNA of Andy Groves,[38] Intel is reinventing itself for the future of transportation through Autonomous Driving Systems (Mobileye acquisition) and moving up value chain to integrate Smart City as a full stack provider powered by Big Data & AI. Through its latest acquisition of Moovit, Intel now owns the 5 layers of the Mobility-as-a-Service (MaaS) stack. The company anticipates that China will catch up with its autonomy (due in part to the disappearance of demand for Chinese chips) and shifting value chain as Apple, Google, and Amazon develop their own proprietary deep learning AI processors. For years, Intel understood and prepared for the industry's paradigm shifts and is now better

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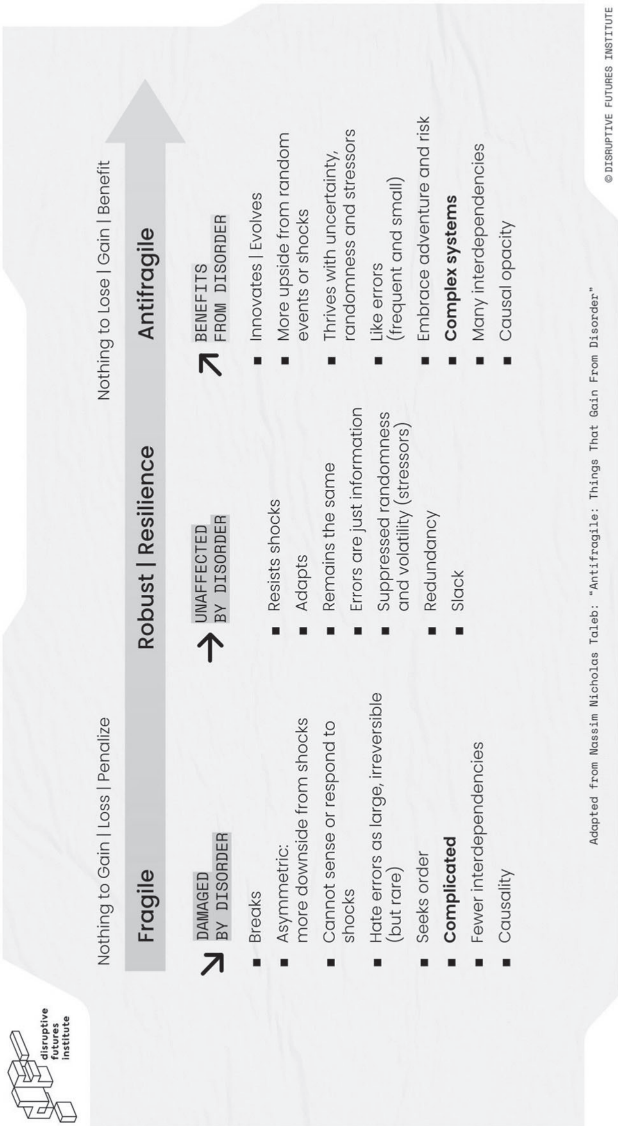
[35] Nicholas Nassim Taleb, *Incerto: Vol. 2. The Black Swan: The Impact of the Highly Improbabl*e (United States: Random House, 2007).
[36] Michele Wucker, *The Gray Rhino: how to recognize and act on the obvious dangers we ignore* (New York: St Martin's Press, 2016)
[37] In Ernest Hemingway's 1926 novel *The Sun Also Rises*, war-veteran Mike is asked how he went bankrupt. "Two ways," he answers, "gradually, then suddenly".
[38] Andy Grove, Only The Paranoid Survive – How to Exploit the Crisis Points That Challenge Every Company and Career (UK: HarperCollinsBusiness, 1997).

suited than legacy competitors to lead given its anticipatory mindset. (Intel created a Pandemic Leadership Team 15+ years ago, and was able to decode next-order implications of pervasive computational intelligence, including Sentient Tools+, which will incorporate intelligent, aware, and social machines with converging Smart Cities, Autonomous Systems, AI, 5G, Internet of Things, etc.). Admittedly, radical transformation is tumultuous and uncertain, as evidenced by the highly vocal challenges Intel faces (particularly in the context of short term-driven financial markets). Only time will tell whether the right strategic choices were made, but defying inertia by forcing disruption on itself in moving from an established PC and volume chip company to reimagining its relevance as the future of mobility emerges: however turbulent these choices may be during the transition, Intel is anticipatory.

Antifragile

Figure 5.



Antifragile systems benefit from disorder. Shocks and errors make them strengthen, not break. Silicon Valley, for example, responds well to pressure. Their experimentational, fluid mindset allows them to rapidly find new solutions. They innovate and evolve, strengthening through the natural selection-like pressure. It is no coincidence that Silicon Valley has $450 billion held in cash.

Drawing analogies with Taleb's Antifragile,[39] fragile systems are damaged by disorder. They receive more downside than upside from shocks. For instance, financial theory—predicated on a stable and orderly world –tells a company not to hoard cash, but cash can be a life preserver in unpredictable times.

Continuing with Snowden's Cynefin-framework, the complex systems that are being created must at least be resilient to shocks and changes, or, even better, benefit from these.

Many of our economic systems and companies are fragile from having followed the formulaic strategic playbook of optimization and hyper-efficiency in a world they presumed was linear and predictable. If we are to remain relevant (i.e. not have our strategic decision-making substituted by machines), we must create innovative social and economic ecosystems that strengthen under stress.

If we were to map Deleuze on Taleb and develop a Deleuzian concept of antifragility, we could then consider that a Deleuzian conception of the framework of decision-making shifts the idea of complexity.

If we are fragile, events are "produced" that we do not control. This breaks our descriptive plane of reference and our relationship with order and causality. Errors occur when the "plane of immanence" renders our plane of reference operationally dysfunctional.

However, the virtue of antifragility is that in Deleuzian terms, if we occupy the plane of immanence, the manifestation of Being will not radically affect us. We are not fighting against the plane of immanence by adhering to our plane of reference: in other words, we are liquid, we are responsive to what unfolds. It is not that we like errors—rather, errors don't exist. Errors do not exist because our representation derives from Being itself.

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[39] Nassim Nicholas Taleb, *Incerto: Vol. 4. Antifragile: Things That Gain From Disorder* (United States: Random House, 2012)

Agility

We use "agility" in the context of our Deleuzo-Sartrean existentialism and the Cynefin-framework,[40] looking at properties such as our ability to define one's beingness by creating our essence through curiosity, innovation, and experimentation. This is to allow our essence—through instructive patterns—to emerge, especially in complex adaptive systems. It is in this sense that we draw parallels to existentialism, whereby a problematic exists and then we define our emerging essence through our choices and decisions.

As GE's Sue Siegel said in 2018: "The pace of change will never be as slow as it is today." As the world accelerates exponentially, our leaders—and humanity alike—must develop agility by unfolding emergent behaviors (amplified or dampened, depending on feedback, to move in a given direction), experimenting, tinkering to fail fast, and allowing instructive patterns to emerge. In Deleuzian terms, while existence is indeterminate and thus unknowable, through our problem-solving framework (flexing constraints to manage emergence, with the dampening or amplification of our behavior), we are defining our essence as it emerges and, in doing so, moving in a defining direction. The choices manifest themselves to us through the "planes of immanence."

While the complicated domain allowed us to rely on experts (known unknowns) for a range of right answers, the complex frame needs humanity to harness curiosity, creativity, and diverse perspectives given emergent practices.

Given the constant flux, unpredictability and interdependencies of moving parts, we need to understand the entire system to act effectively. This introduces the concept of liminality, the blurry boundary zone in-between spaces which going forward may emerge beyond just a transition phase. With ambiguous complexity, the liminal "in-between" becomes a constant yet fluid and evolving system. This means our problem-solving must adapt and become emergent. Our agility lies in leveraging on this liminality for transformation: using the liminal spaces of uncertainty to drive creative

[40] "A Leader's Framework for Decision Making", hbr.org, accessed July 26, 2020, https://hbr.org/2007/11/a-leaders-framework-for-decision-making.

destruction[41] and disruptive innovation.[42] Emergent matures as a constant, and is no longer the temporary stage, state, or period of transition.

In Deleuzian terms, indeterminacy, emergence, and becoming are constants and actual identities in the world are simply momentary embodiments of the virtual. Our decision-making process will not be exempt from disorder. Instead, we must embrace disorder to lead both in and through it. This contrasts with much of the strategic decision-making which relies on predetermined playbooks with parameters assuming stable, predictable, linear, or safe worlds.

In turn, this liminality opens to the importance of interdisciplinarity and highlights the limitations of binaries (i.e. thinking between options), which is something that critical thinking would discourage. Cross-fertilization between people with T-shaped profiles that couple deep expertise with broad experience, helps create new combinations in a world where patterns are harder to interpret. However, in the future we are going to need to grow more of neo-generalist tendencies, the X-shaped profiles that bring people together to dream.[43]

Our agility lies in an existentialist framework which influences leverage points to create attractors for emergence.

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[41] Joseph Schumpeter, *Capitalism, Socialism and Democracy* (United States: Harper & Brothers, 1942).
[42] Clayton Christensen, *The Innovator's Dilemma* (United States: Harvard Business Review Press, 1997).
[43] Marty Neumeier, *MetaSkills – Five Talents for the Robotic Age*, (United States: New Riders, 2013), 166-167. See also David Epstein's book "*Range – Why Generalists Triumph in a Specialized World"*.

Figure 6.


Existentialist terminology applied to Antifragile and Cynefin frameworks
Essence precedes Existence
Productions / Eternal Return / Archetypes
Prediction / Self-Fulfilling Prophecy
Deterministic / Errors / Dysfunctional
Inconsequential or Lost Beingness / Lego
Reductionist / Extended
Existence precedes Essence
Agency / Choice / Being / Contingency
Reoccurring Responsibility / Emergence
Unfold / Individuation / Plane of Immanence
Liquid / Indeterminacy / Intensive
Fragile
Antifragile
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Moving Forward Responsibly

Adopting AAA can ensure more meaningful and intentional agency over our futures. We believe this is our responsibility as humans entering the future with rapidly learning machines. We must realize our capabilities in a way that is more empowering and engaging than our current systems and institutions allow for. The longer we put off becoming anticipatory and antifragile with the agility to embrace emergence, the greater the risk of our losing control of our own fate.

The stakes are high because in complex environments the impacts of our decisions are non-linear (i.e. small inputs can result in disproportionate effects). We have pointed above to the importance of humble yet critical thinking regarding what we called "technoscientificism"—the belief that data and predictive models will save the world. On the side of AI and predictive models, we have discussed the importance of understanding the inherent assumptions at work. Especially in the case of non-linear models there is a problem arising from model faithfulness and confirmation whereby it can be extremely difficult to confirm that a model is producing faithful representation of its corresponding relevant real-world system:

> For nonlinear models, faithfulness can fail and piecemeal perfectibility cannot be guaranteed, raising questions about scientific modeling practices and our understanding of them. However, the implications of the loss of linear superposition reach father than this. Policy assessment often utilizes model forecasts and if the models and systems lying at the core of policy deliberations are nonlinear, then policy assessment will be affected by the same lack of guarantee as model confirmation.[44]

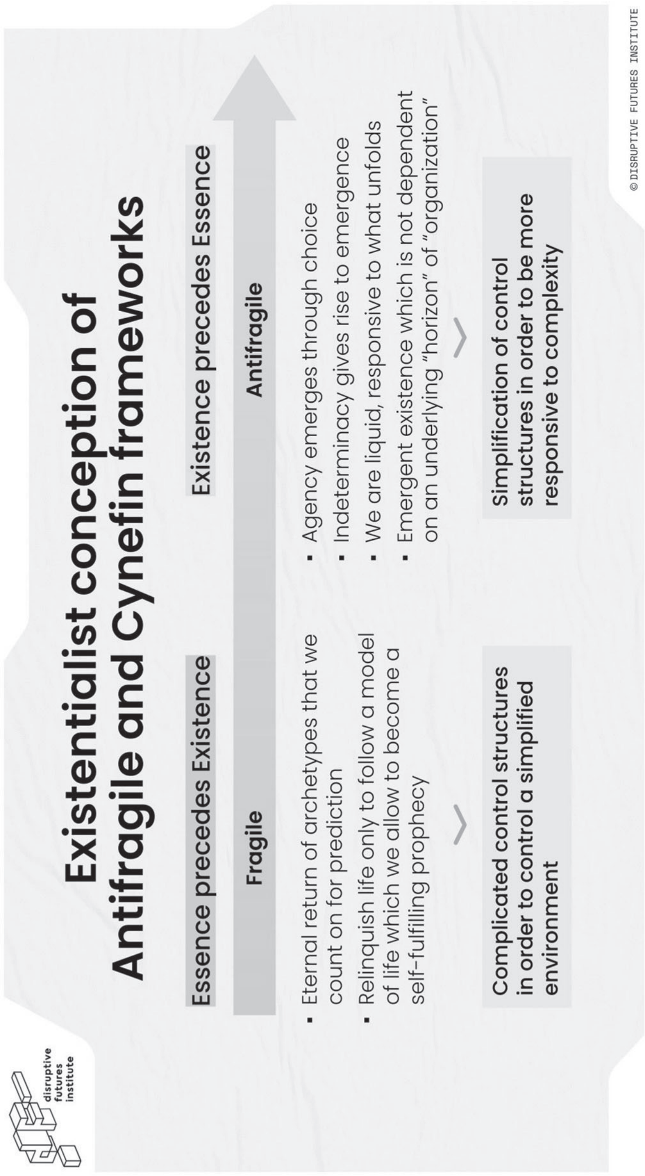
With such considerations in mind, our point of view is that while AI is rapidly advancing up the value chain—which may increasingly provide insights that enable more-informed decision-making—leaders should remain critical towards inadvertent reliance on prescriptive algorithms in decision-making because complex and uncertain environments inherently involve unknown unknowns. These are situations where no right answers exist and only in retrospect can one establish cause and effect due to the presence of multiple interacting causes that cannot be individually distinguished. In such environments, rather than trying to predict what is inherently unpredictable, we propose that an existential framework that

[44] Bishop, Robert, "Chaos", *The Stanford Encyclopedia of Philosophy* (Spring 2017 Edition), Edward N. Zalta (ed.), https://plato.stanford.edu/archives/spr2017/entries/chaos/.

encourages and enables sense-making, learning and experimental thinking, explorative tinkering, and emergent adaptive behavior is the future of decision-making. It is our hope that by encouraging diverse innovative perspectives, curiosity, participation, experimentation, as well as criticality, we can realize much more of the knowledge we already have while also promoting new thinking. For this reason—in order to uncover the essence of existence as opposed to the existence of essences— we are building an AAA-framework that uses Deleuzo-Sartrean philosophy to draw parallels between the emergent nature of Being and decision-making. In other words, we believe that what matters is the ever-emergent process in which we must participate through choice and action. We see technoscientific modelling as just one paradigm that humans have innovated. Whilst scientific methods are powerful, we at the same time have understanding and lively debate on their limits. This juxtaposition is a clear indication of our being more sophisticated thinkers than the AI we are building.

As such, the AAA-framework is an existentialist platform in that—in encouraging and enabling learning through experimental thinking, explorative tinkering, and emergent adaptive behavior—it draws attention to our agency. We must continuously make sense of our complex, unpredictable, and indeterminate world so that we may remain agile and able to respond fast. We must remember that agency emerges through choice, not structure. If decision-making is an instance of exercising choice, then automated decision-making undermines our agency. Yet, complex environments—where there are no right answers—are exactly where we stand to benefit most by using the creativity afforded by exercising our agency rather than following an automated decision-making structure. Therefore, in order to remain liquid and responsive, we believe humans must exercise our agency instead of following decisions that are made on our behalf and only evaluating them in retrospect.

Figure 7.


Existentialist conception of Antifragile and Cynefin frameworks
Essence precedes Existence
Existence precedes Essence
Fragile
Antifragile
Eternal return of archetypes that we count on for prediction
Relinquish life only to follow a model of life which we allow to become a self-fulfilling prophecy
Agency emerges through choice
Indeterminacy gives rise to emergence
We are liquid, responsive to what unfolds
Emergent existence which is not dependent on an underlying "horizon" of "organization"
Complicated control structures in order to control a simplified environment
Simplification of control structures in order to be more responsive to complexity
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To reveal itself, emergence requires relentless attention toward curiosity and experimentation. It is by means of the experience we obtain through heuristic investigation, reasoning, and discussion that our perspectives and behaviors can guide our emergent choices. With AI, choice is more important than ever, yet also more difficult and urgent than ever. For, while understanding the benefits and shortcomings of technoscientific solutions is more complicated than ever before, technology has become so pervasive and is being developed so rapidly that it is not possible to keep up with the consequences of its implementation. Much of this development is being sold as some objective progress which it would be foolish to oppose. At the same time, AI is very much a question of power, as is very well explicated by Ivana Bartoletti, for one, in her book *An Artificial Revolution* which poses the justifiable worry that "we are sleepwalking into a future written by algorithms."[45] Yet, AI in itself is neither of the above. Instead, AI is a technological construct utilizing mathematical computer models to access data quicker and to combine that data in useful ways. Regarding AI, we have a choice as to what degree of autonomy in decision-making we wish to give machines. We can choose the contexts in which we agree AI can be used for the good of people and society. We can select the contexts in which we wish to avoid AI. Currently, we also have choices as to how to regulate the use and building of AI. Importantly, we define the traits that humans should be developing to improve our abilities as our environment grows more complex, and the capabilities that we need to enhance to stay relevant as machines reach increasingly greater levels of human functions. Today, we can decide whether we will be able to continue to add value when partnering with machines.

Amid all this, it is especially incumbent upon leadership to exercise anticipatory muscles to navigate with agility the constant, unpredictable change as AI evolves. We need to emerge from the current dominant paradigm of inertia that stems from our flawed assumptions of a stable, normative, linear world. As it amplifies, compounds, and reverberates, technology could ricochet into permanence and irreversibility. In order to prevent ourselves from sleepwalking into that future written by algorithms, humans need to wake up and make choices for ourselves. That is our reoccurring responsibility.

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[45] Ivana Bartoletti, *An Artificial Revolution – On Power, Politics and AI* (Great Britain: The Indigo Press, 2020), cover: publishers blurb.

Organisational Adaptation for Artificial Intelligence Futures: Key Principles for Leaders from the Futurists Perspective

Elissa Farrow

Abstract

This chapter will outline six key principles that leaders in organisations could consider when managing the adaptation of Artificial Intelligence (AI) in their organisational settings.

The Leader of the Future:

a. Is open to understanding what AI is (AI friendly).
b. Understands AI's diversity and layered implications (ethics, culture, legal, value).
c. Sensitively manages emotional responses (self and others).
d. Redefines leadership values, role and power structures.
e. Designs strategic approaches to AI/Human workforce design and adaptation.
f. Is one with new context – builds trust via participatory experimentation.

These principles suggest that firstly, leaders need to be open to learning in all its form (through the wins and perceived losses). Given the leader has traditionally set the direction and work priorities, leaders of organisations need to understand the diversity and layered implications that AI brings to the ecology of the organisation (consistency across litany, system, world view, and metaphor). It is likely that for some, without agreeing the purpose and contribution that AI could bring to an organisation, adaptation strategies will initially be met with a level of resistance.

The leader's role will need to be adapted in the organisational contexts where the boundaries around legislative or fiduciary decision-making processes will (in the short term) still need to be adhered to. Leaders will be critical in shifting traditional models to disbursed models, smaller agile teams of AI and human teams.

Keywords

Leadership; Artificial Intelligence; Adaptation; Organisational Strategy; Participatory Experimentation; Workforce Design.

1.0 Introduction

Leadership as a concept has been part of organisations for thousands of years. Leaders are born or made. Leaders rise or fall. The majority of teams and corporate organisations have the concept of leader. A leader is typically a human who is in a position of status, authority, autonomy, accountability and responsibility for the direction and decision making within an organisational setting. A leadership role doesn't necessarily mean a higher position within a hierarchy, but often connects to positional influence (Conner, 1992). In this chapter I will use the term 'leader' as a general term to cover team leaders, managers, directors, executives, senior executives and C'Level executives.

Many organisations, for legal and regulatory purposes, have a form of hierarchy that varies based on the industry (with government as very top) versus a start-up company (flatter in nature, but still with a primary investor, owner or shareholder group). A growing trend in corporate organisations which are embracing technology as a service is that a leader can also mean servant, guide or facilitator (Change Management Institute, 2013). This is particularly relevant in corporate organisations practicing agile or iterative service delivery techniques or participatory design approaches, which are commonplace in organisations operating in the era of 'industry 4.0' (Schwab, 2016). It is in these organisations that team members rather than leaders are idea generators, solution designers and strategy setters. Regardless of the form of leadership accepted, human leaders are central to adapting an organisation's ecology (system, culture, process and form) and are key to facilitating the embracing of new forms of diverse 'teams' which includes both human and AI functions jointly delivering services.

This chapter will outline six key principles that leaders could consider when managing the adaptation of AI in their corporate organisational settings. See Figure 1:

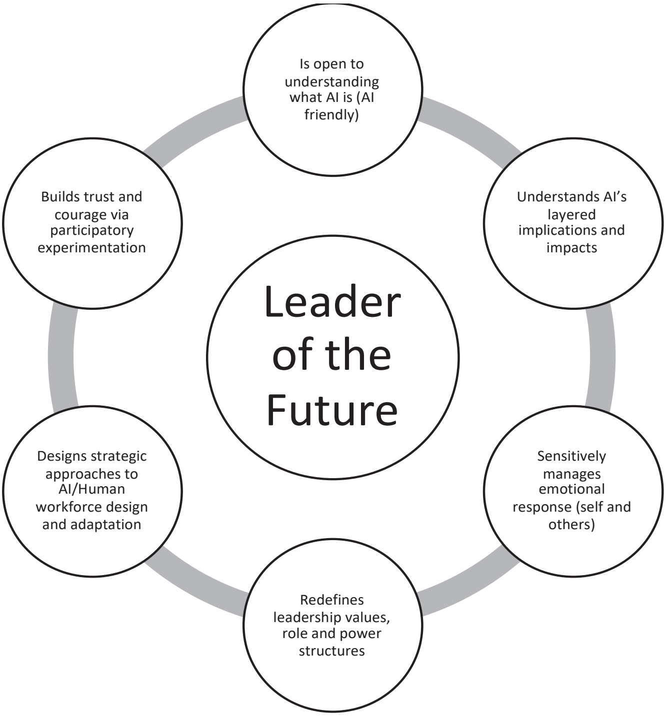

Figure 1. Leader Principles for Artificial Intelligence futures

The principles suggest that firstly leaders need to be open to learning in all its form (through the wins and perceived losses). Given the leader has traditionally set the direction and work priorities, leaders of organisations will need to understand the diversity AI brings and the layered implications to the ecology of the organisation (consistency across litany, system, world view, and metaphor) (Inayatullah, 1998). It is likely that for some, without agreeing the purpose and contribution AI could bring to an organisation, adaptation strategies will initially be met with a level of resistance.

The leader role will need to be adapted in the organisational contexts where the boundaries around legislative or fiduciary decision-making processes will (in the short term) still need to be adhered to. Leaders will be critical in shifting traditional models to disbursed models, smaller agile teams of AI and human teams.

This chapter will now outline the research base that shaped the six principles and then outline the key themes of each, before concluding with some practical suggestions to support leaders in their role to shape and adapt AI organisational strategy.

2.0 Research to support the findings

Futurists and foresight practitioners offer unique perspectives and when they come together there is a notable buzz in the air. The research supporting this chapter is qualitative; both active and participatory. The workshop was conducted with Futurists who were attending the Asia Pacific Futures Congress at both the 2018 and 2019 processes. Futurists were asked to imagine a scenario in 2040 where AI and Humans were together in a corporate organisational setting. They were asked "What do leaders of organisations need to consider when adapting organisations towards 2040 AI futures?".

Futurists contributed over 180 data elements which were filtered to identify six key leadership principles that leaders could consider when leading the adaptation of AI in their organisational settings. This rich base data was then added to with contributions collected from 300 leaders who had attended organisational change leadership and personal resilience development workshops, conducted by the author, in a number of corporate settings in Australia (through her consultancy About Your Transition). They were asked a similar question which related to the differences between leading change and managing business as usual.

3.0 The six principles of future leaders unpacked

Leading teams towards positive futures is a different mindset and competency compared to managing the typical business-as-usual activities. Leaders may be exceptional at fulfilling all business-as-usual functional and managerial activities, but when faced with a transformation task, leaders have to adapt patterns of behaviour and old knowledge domains quicker than their staff. They then need to navigate and lead their teams and customers through the adaptation journey with awareness, intention and skill. Awareness is the main theme that is both a conscious and unconscious process.

This chapter will outline the six key principles identified through the qualitative research process that:

1. Is open to understanding what AI is (AI friendly).
2. Understands AI's layered implications and impacts.
3. Sensitively manages emotional responses (self and others).
4. Redefines leadership values, role and power structures.
5. Designs strategic approaches to AI/human workforce design and adaptation.
6. Builds trust and courage via participatory experimentation.

Each section will provide insights, tools and ideas for leaders to apply in the present day that will enable them to be ready to be leaders in the future or develop the next generation of leaders.

3.1 The Leader of the Future – is open to understanding what AI is (AI friendly)

The principles suggest that leaders need to be open to learning what AI really is in all its forms. This doesn't mean that the leader heads off to university to do a data engineering degree and become the expert in AI (unless that is their chosen path). AI in its simplest definition is a field of computer science and has a wide and multi layered application. The field of AI research and practical uses have been building in prominence in corporate settings since the 1950s and now are part of many organisational system architectures.

AI technologies are designed to perform tasks that replicate human or animal intelligence and behaviour (Fiske, 2000). Artificial Intelligence is typically exhibited by a machine or non-living creature and part of the confusion about what exactly AI is stems from the growing range of sub-disciplines (with unique sub fields) (Singh, 2019; Mehta & Dvarakonda, 2018; Marsh 2013).

The six main disciplines of AI include:

- Machine Learning – machine accesses data and learns from this automatically.
- Deep Learning (deep neural networks) – part of machine learning but more related machines unsupervised, making sense of unstructured data.

- Fuzzy Logic – many valued logics rather than two valued logic (binary).
- Computer Vision – through cameras, computers can see, identify and process images.
- Robotic process automation – devices that can move and react to sensory input.
- Natural Language Processing – processing of natural language data, requiring speech recognition, natural language understanding and generation.
- Strong AI – artificial intelligence equal or better than human intelligence ‘sentient thought’.

Each of these applications has unique functions and purposes and are often used together. As in the case of a robot function, this includes computer vision, robotic process automation and a brain of machine learning. Each of these applications varies in stages of development and most forms still require some form of human intervention given that self-generating and self-supporting ‘sentient’ AI does not currently exist (that we are aware of).

An open and curious perspective towards AI, or being ‘AI Friendly’, implies that a leader is able to note any possible technological bias they may have; be able to step outside of those fears and be willing to openly explore a set of operational future scenarios different to what their comfortable present may be. The leader becomes curious and informed enough about AI and its implications to ask the right questions in the strategy development process, and balance dimensions of both efficiency and economy in the discussion. Economy relates to the costs (both financial and non-financial) as well as the benefits (tangible, intangible, and for who, i.e. customer staff, shareholders, community).

Efficiency relates to the time and pace or reach of the adaptation. Knowing that how you work and the speed in which you do will have an effect on the overall result. See Figure 2:

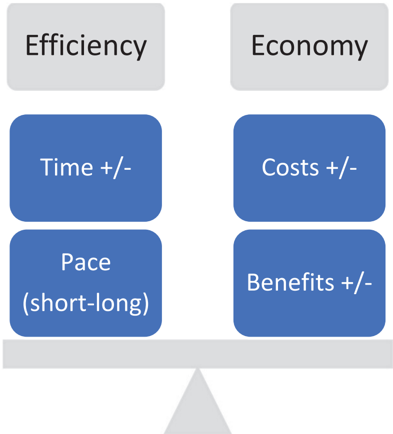

Figure 2. Efficiency and Economy

Being open and aware of their own bias in perception is the first step for any leader. To be able to understand their own personal filters, fears or perceptions and see the pros and cons of AI – and see the possibilities in their own unique organisational contexts and cultures. It is also important for a leader to be clear on their own position when it comes to AI. This will help in looking at AI objectively, rather than being influenced by the spin of AI developers or sales consultants who may provide a 'glamourous' economic driven response, rather than a response grounded in the unique reality of each organisational ecosystem.

3.2 The Leader of the Future – understands AI's layered impacts and implications

The second principle relates to leaders of the future understanding the layered impacts and implications of installing AI solutions into an organisation's ecology (Farrow, 2019). Leaders need to see that AI is not just another technology solution. AI and the augmenting or automating of processes and functions will challenge not only the traditional numbers of humans needed, but also the philosophy and core assumptions that underpin humans being central to the concept of work in a corporate job setting. Replacing human work with machines also challenges the value of work, and the safety net which humans have come to rely on in terms of market driven forces and 'a day's pay for a day's work'.

Leaders making decisions about the use of AI within corporate organisational settings may consider what impacts to expect in areas including process, technology and people (and the economic benefit and value this will ultimately produce for the profit and loss statement). With the introduction of AI into an organisation it is important that the true cost is identified from the layered impacts and implications.

Ways for leaders to do this is by extending the existing impact analysis toolsets to cover additional dimensions and provoking deeper discussions as the AI adaptation strategy is being designed and refined, rather than post implementation. Often impact analysis tools look at the expected costs and savings predominantly from an efficiency impact perspective (staff numbers and production time savings or service throughput in particular). Savings rely on understanding the current baseline performance and cost by process or function and then, in monetary terms, mapping and quantification of the future difference. This more outcome focus doesn't provide leaders with the range of layered impacts and implications, or an opportunity to make a decision on 'what AI will not do'.

The participants involved in the underpinning research for this chapter identified a range of different consequences of potentially changing the balance of human worker to AI:

- Customer segments – what they gain and what they inherently lose from possibly having a machine do a human's function (empathy, dealing with the 'grey' rather than the 'black and white').
- Human employee segments – gain (new skills, advantage of removing 'boring work') and losses (both professionally, such as their source of income and personally, such as their sense of self if unemployed).
- Supply chain providers – (new partners, new delivery modes, loss or renewing of existing relationships and contractual arrangements).
- Those outside the walls of the organisation, such as social influencers or commentators, lobby groups and regulators, as well as family and community (Farrow, 2020).

In organisations that have been early adopters of AI, AI (as an entity) will become a stakeholder that will also 'experience' gains and losses. Over time, AI may reach sentience and be 'human like' in many of its responses.

You can imagine that for some employees, there may even be an element of grief involved with the loss/upgrade of an AI colleague who was so heavily relied upon for overall success.

Table 1 shows an expanded concept of impact analysis that looks at the layered impacts of AI.

Impacted Stakeholder or Group	Overall Impact Score (High, Medium, Low, Neutral)	Workers in the Organisation (Human and AI)													Process and Standards			Technology							Culture and Values				
		Number Impacted	Knowledge and Skills	Relational Networks	Structure	Job Roles	Job Security or Compensation	Mental or Physical	Location	Personal Values and	Number Impacted	Front Office	Middle Office	Back Office	Market	Governance and Risk	Ethical Standard	Hardware	Software	Interface	Storage	Solution Architecture	Security	Disposal	Vision and Mission	Values	Norms and Narratives	World Views	Metaphors
Summary Impact																													
Internal stakeholders i.e. general staff by team, managers, leaders including AI																													
External linked stakeholders i.e. users or customers, suppliers, regulators, advocates and influencers																													
Other stakeholders including family, community, biosphere																													

Note: typically, the vertical axis of the impacted stakeholder group would be broken down to the level that makes best granular sense to test impacts. For example, rather than having a line that says employees, you would have 'team x', 'team y' so that specific impacts can be more clearly differentiated. The horizontal axis would also be as specific as possible down to unique process and technology names. They have been generalised into the themes in the table above for illustrative means.

Table 1. Example of an AI Implementation Impact Analysis Tool

The process to populate the table would typically be a cross functional participatory workshop that would identify and analyse:

- What we are aiming to achieve; futures scenarios and aspiration with AI introduction or expansion.
- What the current state and legacy impediments or enablers are.
- What the perception of the main impact areas, based on a gap analysis between futures and current states, is.
- Who the stakeholders are that will be impacted, both internal and external (if AI already exists within the organisation some may be deemed a stakeholder due to its embedded function, as well as some other non-human stakeholders such as nature or the environment).

This would be followed by an analysis (starting with the main impact areas) of the specific impacts by stakeholder group on:

A. Workers' attributes (both human and AI if applicable).
B. Process and standards.
C. Technology.
D. Organisational culture.

Followed by an assessment of:

- The overall impact by zone (by impact area and stakeholder)?
- The overall impact on each stakeholder?

And a final discussion on:

- How does this impact analysis change our thinking in relation to AI implementation target areas, scope and pace?

A layered approach can take a discussion beyond one of standard corporate jargon to one of a world view and image that underpins the organisation or process. Methods such as Inayatullah (1998) Causal Layered Analysis will provide a deeper approach to identify possible impacts and create scenarios for action (Inayatullah, 1998). Layered approaches can also be used within an individual coaching process, where leaders will begin to realise that the definition of place, ego, skill and diversity in teams of the future will need to cover both the human and non-human (Farrow, 2020).

3.3 The Leader of the Future – sensitively manages emotional response (self and others)

The reality of a machine and human working together or a machine taking a traditionally human role and function is not a new concept. For thousands of years humans have used tools to augment their role and function to gain some form of advantage (Farrow, 2019). However, the concept of machines replacing humans has highlighted a fear response often reinforced by popular media or literature where the machine is portrayed negatively.

Depending on the leader's experiences, they may not have the psychological and neurological understanding (or in some cases the sensitivity) to best support those employees impacted by change at the pace that is required. In many organisational settings, psychological and mental health or even basic emotions are not discussed, due to cultural differences, or a more rigid and formalised workplace culture. Happily, in many large corporate organisations, this is shifting with the awareness that mental health is one of the leading causes of injury or death in the workplace (Stahl, 2020).

It is dangerous to play the role of psychologist to someone in psychological distress. However, an empathic and sensitive response by a leader is essential as an immediate first step; this is one of the primary aspects of emotional intelligence (Goldman, 1996). Support can then be provided via an appropriate referral to a medical practitioner or support service. This approach is regardless even if the leader has a background in counselling or psychology. Another way to sensitively manage an emotional response is to understand theories such as the Elisabeth Kübler-Ross model (1969); that there are five stages of grief.

AI becoming part of an organisation and changing the traditional roles and functions of humans may, for some employees, cause feelings of loss. This may be in the form of loss of function, social group, or – in the worst-case scenario – loss of income. The leader will also feel a sense of loss from any personal impacts, including the loss of those employees who may leave the organisation. It is important to communicate the change process with sensitivity to the fact that the wins and losses will not be fairly dispersed.

Kübler-Ross' model (1969) has been adapted for use in organisational change contexts by a number of theorists. The stages are not linear and are often shown as a curve such as in Figure 3, which is based on the original. Everyone goes through the behavioural stages differently based on their previous experience of change, their current state of change (what else they have on in their lives) and their own resilience levels.

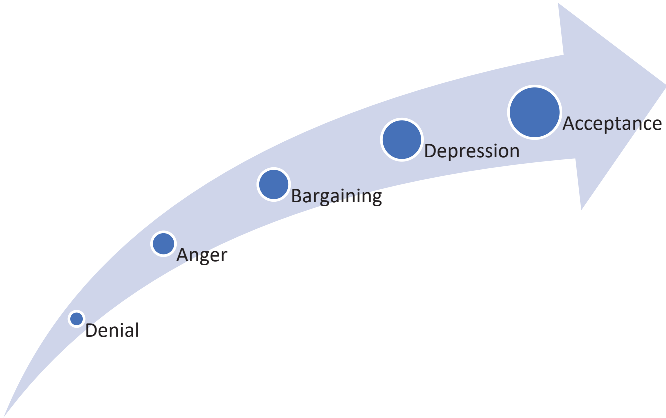

Figure 3. Original 5 Stage Grief and Loss Curve Stages (Kübler-Ross, 1969)

Emotional responses to change such as those experienced from an AI adaptation when applying the Kübler-Ross (1969) could typically include:

- Denial: the AI strategy detail is out, the possible shifts are cognitively noted, it's a shock that the current reality will change possibly dramatically and there is difficulty in believing what is happening. Some may act as if nothing is happening and seek to dwell on the past. Others might have irrational fears such as AI is to blame for this, thus personalising AI. However, in reality AI is not installing itself in the organisation, it the decision makers. In this stage, leaders needs to provide information in a consistent manner and involve and engage employees in discussions about the possible futures, what it might mean, and to separate fact from myth.
- Anger: when automation was first brought in to manufacturing last century, there as anger by those who were being replaced (Buchanan, 2005). Anger can be both passive and active; physical responses may occur in some contexts. Some may try to 'sabotage' the change effort and possibly direct anger at the leader or the AI. The important factor here is to distinguish a legitimate emotion from inappropriate behaviour. Anger is probably very legitimate to the person expressing it, but the leader needs to work with them to move towards adapting to the reality of the situation. Often those who

express anger may have a legitimate point that would strengthen the adaptation strategy if heard and responded to appropriately.

- Bargaining: there is often the likelihood of anxiety or insecurity and a desire to know more prior to taking action. This is the ‘negotiate a deal’ stage and redirects attention away from the changes to come as a result of AI to other business priorities. In this situation, the leader needs to reinforce the positive actions that employees can take and provide detailed information about the what, why and how, while emphasising the rules that cannot be broken. This is a time of exploration and requires a willingness to test out concepts. Leaders can encourage this with clear messaging and by supporting the formation of new roles, patterns and relationships.
- Acceptance: this relates to personal acceptance and acknowledgement that this change is going to manifest to the scope described. Acceptance for some may come only after the AI implementation has occurred and the new team or AI enabling tools are in place (even if the change is an exit from the organisation, and comes in the future when employees have had time to reflect on what has occurred, and what their opportunities are). For employees who have adapted their roles and remained within the organisational context, it is important for leaders to encourage honest and open feedback in relation to all aspects of the employees’ work; it will take time to embed the change.

Sensitively managing the emotional response for both self and others is a key principle for the leader of the future. Leaders who explore their own feelings about adapting to AI and who foster an empathetic approach will only increase their human connection and understanding. Leaders with this attitude will shape the adaptation approach more holistically. Ideally, AI should support humans in bringing positive change to the broader humanity (not just the corporate bottom line) and help them manage both problems and solutions with greater empathy and deeper layered understanding.

3.4 The Leader of the Future – redefines leadership values, role and power structures

Leaders are critical shapers of any AI strategy. The adaptation of AI in their organisation will affect leaders personally; their role and the power structures they work within, and even their personal values.

There is potential for disruption when AI becomes central to decision-making. Leaders in organisations who are used to being accountable for decisions within their remit will now need to determine the role AI plays in influencing the decision-making process.

Future scenarios of leadership will fall on a continuum between the current state of human leadership, where humans remain fully accountable for all leadership of organisational functions and services, and untested future models of machine-based leadership, which will see humans relinquishing traditional power and allowing AI (if fully trusted) to direct both human and non-human workers in their functions. See Figure 4:

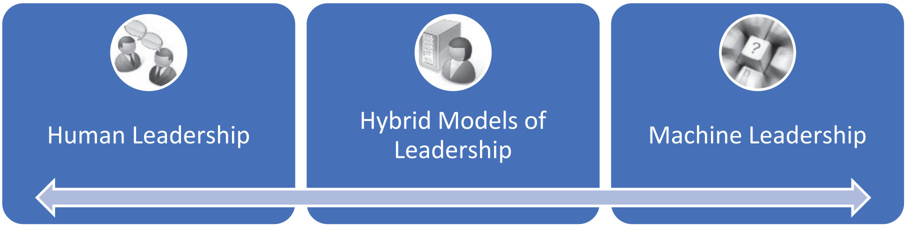

Figure 4. Continuum of Leadership in AI Organisational Futures

Futures scenarios can appear similar to 'science fiction' at times (Love, 2001). Exploring 'outlier' longer term scenarios in a thorough and meaningful way is a useful process to gather new information and assist decision- making in the shorter term.

Shifting leadership models to incorporate either the hybrid model of augmented decision-making using AI or machine leadership will require not only commitment, but ongoing openness to raise and manage issues that may have never appeared before. In a machine leadership setting, who is accountable for the decision? what is the role and power of AI as part of decision-making? how will this shift the culture of the organisation? These are big questions and will challenge not only the learnt theories and values of leadership and power in organisational settings, but also the notion of diversity or inclusive practices in a workplace setting.

Leaders will also need to challenge historical power and control dimensions; redefine their role and be ready to have AI influence or set strategy. It is likely that for some, without agreeing the purpose and contribution AI could bring to an organisation, the level of resistance may initially be higher. By 2038, research participants suggested that there would be a precedent of early adopters who will embrace new forms of leadership, and if the experience is perceived as value adding, the later adopters would be likely to shift to the new ways of working (Rogers, 1962). It was observed that working with AI in an advisor or assurance process could be threatening for some leaders who have had their ego and sense of self defined by the 'leader' title.

An outlier future scenario (currently not regulated) may see leaders actually being AI. Based on the analysis of data, an AI leader in the future may take accountability and provide direction to a fully AI team or AI/human blended team. This will be quite a challenge for leaders who are used to having the final say in decisions and confirms what Makridakis, 2017, 56) suggests, which is that 'the successful firms during the AI revolution will 'focus on' evaluating and exploiting AI technologies to gain the most out of their implementation in all aspects of the firm'. The research gathered to inform this chapter suggests that AI as a form of independent advisory or assurance service provided to augment leader decision-making will become a standard corporate governance best practice by 2038.

3.5 The Leader of the Future – designs strategic approaches to AI/human workforce design and adaptation

The fifth principle of the future leader in an AI context is a changed approach to how organisations are functionally and structurally designed. Hupher (2020) states that "57 per cent of companies predict that AI will 'substantially transform' their company within the next three years; two-thirds believe that their industry's transformation will happen within five years". This means that many people will have their roles adapted, removed or totally new roles and functions will be required as a result of AI.

Given there is a degree of fear around AI, there is often either an optimistic or pessimistic view on the futures of work (Farrow, 2020). The leader of the future will, over time, find that both they and the role they fulfil will have to adapt to fit the boundaries of the organisation's existing regulatory or legislative position. In many industrialised nations these boundaries are set by either government or qualified industry bodies, via regulations and codes that protect worker's rights and limitations to workforce design.

Typically, approaches to workforce design and adaptation are either strategic, operational or tactical. Normally, this process is run by the Chief Operating Officer or Lead of People and Capability (the old Human Resources department). This is outlined in Table 2.

The difference in approach to workforce planning in the future is that a close bond will be vital between information technology strategies and plans, and workforce strategies and plans (see Table 2). Often these plans are separated; there may be a detailed architecture of the data, process and systems, but not a corresponding overlay of a workforce strategy that maps against architectural shifts and changes over time.

Thus, if one of the primary reasons that corporate organisations are implementing AI is to gain a financial benefit (often due to efficiency savings on human labour costs), it makes sense that these strategies are not completed in silos. The Chief Information Officer can't be pursuing their strategy without collaborating with the Chief Operating Officer and vice-versa. Instead the inclusion of AI and the flow on effects to workforce design need to be completed by the whole leadership team, in an overall strategic response, ideally led by the Chief Executive Officer or Chief Transformation Officer. Tactical workforce plans can then be developed for specific AI projects and specific recruitment and staff movement requirements (hence incremental change stages).

The future organisational models where AI is part of the value chain will require a different approach, given it will be AI capacity that changes the ratio and the operational expenditure for either human or machine. See Table 2:

Typical Current Workforce Design Process	**Future Blended AI Technical and Workforce Design Process**
1. What strategic planning processes create the organisation's strategy (typically covering 3-5 years)? 2. What is the current internal workforce supply? (numbers, skills, capabilities, functions, business areas, services, contract versus permanent etc) 3. What does the organisation need from its workforce (skills, capabilities, numbers, locations, annual peaks and troughs) to deliver on this strategy? 4. What is the profile of our current internal supply? (age, skills, capabilities, location, potential separations/retirements etc)?	1. What is the organisation's strategy for the medium to long term, including how automation specifically fits into the organisation's future? 2. What is our value statement towards our human workers and employees? 3. What is the current internal workforce supply mapped to the existing process and system architecture? (numbers, skills, capabilities, functions, business processes, areas, contract versus permanent, annual peaks and troughs etc)

Typical Current Workforce Design Process	Future Blended AI Technical and Workforce Design Process
5. What are our forecast workforce capacity and known capability shortages currently against function? 6. What is the availability in the external market to meet our current and forecasted capability shortages? 7. How can we close the gap between what we have now and what we will need to achieve our strategy (train existing, partnerships, recruit etc)? 8. Document the workforce strategy and activate the strategy via tactical plans.	4. What proportion of processes are targeted for possible AI automation (full or partial augmentation) including estimated timing? 5. What would the workforce look like if AI replaced human workers in these processes (skills, capabilities, numbers, locations) to deliver the strategy – scenario analysis? 6. What is the profile of our current internal workforce supply (age, skills, capabilities, location, potential separations/retirements etc)? 7. What are our forecasted workforce capacity and known capability shortages currently against functions targeted for AI implementation? 8. What is the availability in the external market to meet our current and forecasted capability shortages? 9. How can we close the gap between what we have now and what we will need to achieve our strategy (train existing, partnerships, recruit etc)? 10. Document the workforce strategy and activate the strategy via tactical plans with review cycles.

Table 2. Comparison of Workforce Design Process

The primary difference in process is the deliberate inclusion of future strategies for automation and enterprise architectures. Typically, organisational strategy is developed in silos, leading to disconnected transformations that are then out of sync with workforce capability, and functional and structural designs.

Having a view of AI and automation strategy which is aligned with workforce design means there can be strategic discussions relating to the value we place on human workers, as well as the customer experience we want to provide. Using AI in medical fields can bring positive outcomes by allowing workers to spend more time with colleagues or patients and less time on repetitive processes; the technology will enable workers to spend more time 'being human'. For example, health radiology is a role where specialists are looking at patterns all day. These tertiary educated workers could, with AI support spend more 'human to human' time with their patients and provide a deeper level of empathy and understanding.

3.6 The Leader of the Future – builds trust and courage via participatory experimentation

It is very likely over the coming years that, unless there is a deliberate strategic choice or a major ecological event and all the computers, their links and energy sources go down, corporate organisational ecosystems will include some aspect of AI. Many people in industrialised societies have already had interactions with AI, or the products of AI, without fully understanding that AI is embedded in that interaction. Singh (2019) states that there has been a "270 per cent increase" in organisations that have some form of AI over the last four years.

Many people express a willingness to experiment with AI in an environment where it is viewed as either a novelty or 'safe'. Home automation functions in our fridges, vacuum cleaners and cars, our smart phone fitness apps or the chat bot used for online banking, are all perceived to be a safer option of AI. There is a considerable amount of trust in the hosts of these systems that these AI functions are secure.

AI needs quality data to do its work, and the organisations with a regular supply of the richest, cleanest data will be the organisations that will have the greatest success in AI strategy deployment (Brynjolfsson & McAfee, 2018).

In some organisations, AI is already quite a 'loaded' topic for leaders and employees. They have read the news about the successes and failures of AI. They have seen the 'friendly' information they gave to their Facebook social groups being shared with third-parties who target them with ads. They have seen how AI algorithms can be used in a negative context to sway voter preferences. Building trust in an organisational environment where AI is being implemented is imperative, and relies on good leadership judgement and analysis, as well as the appropriate style and approach for the scale of the intended impact.

The research used to inform this chapter suggests that leaders of the future need to be expert trust and courage managers. They need to gain the trust of the people who are building or 'selling' the AI solution. It is a challenging ask, particularly if the leader is having their first exploration of the potential of AI in their organisation. How can people initially trust something that was built to replace humans? The leader of the future needs to understand the business model of their AI supplier and what their approach to ethics and integrity are. Leaders then need to trust their supplier to follow that stated business model. Leaders need to define and implement appropriate involvement strategies to gain the trust they need.

In turn, stakeholders and customers need to understand how AI will fit within an organisation and trust the approach used. The AI/human hybrid business model needs to be transparent, showing them how AI will be implemented and for what purpose, what choices they have and the safety (and ethical) measures in place to protect them. Their perception and hopeful reality of protection is one key aspect where trust can be created – typically, research participants suggested you trust 'those that commit to their word'.

Involvement is one of the keyways an adaptation sponsor (key leader accountable for the deployment of the AI strategy) can gain trust in the process of AI strategy deployment. Involvement is a proactive process; it needs to be across the full adaptation journey from the concept stage through to design and use. When employees are involved in change in a meaningful way and their views are respected, it builds commitment and helps manage the resistance that may be likely when AI is to be deployed where humans once provided the service or function.

Involvement also means that employees are actively participating in and exerting some level of influence over the AI strategy and deployment. Involvement can include designing, creating, assessing or planning. However, it comes at a cost, which is why some sponsors only apply a 'token effort' to the process. The adaptation sponsor and the AI solution builder may both resist involvement because the costs may impact on their performance targets, the spend, and the AI design itself.

Involvement relies on the adaptation sponsor collaborating in a planned way, with a range of players both in and out of their organisational ecosystems and then planning the involvement approach accordingly. See Figure 5:

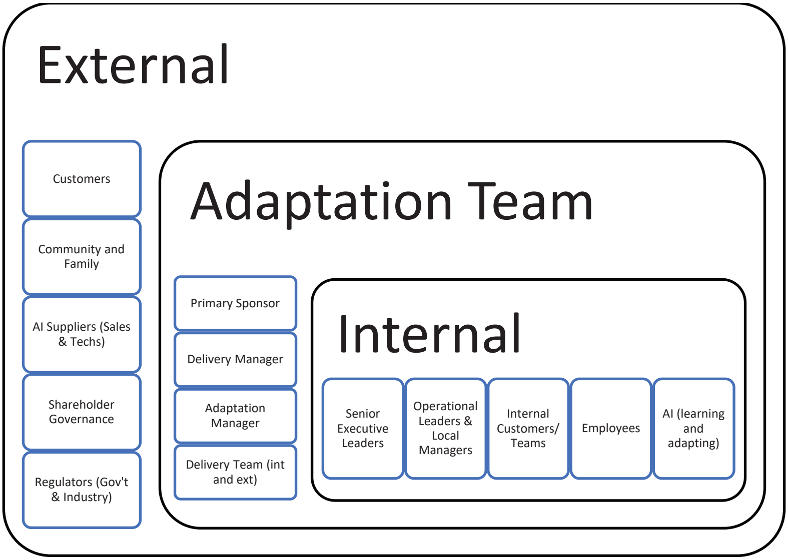

Figure 5. Examples of Key Stakeholders in AI Strategy Deployment and Adaptation

Before being fully functional and replacing human workers, many forms of AI will rely on being 'taught' the local process and response options, and the conditions for decisions one way or the other. This means that there will be a larger involvement from the internal teams supporting the AI functionality in the full learning and testing approach. AI is therefore included in the internal team as a stakeholder, who needs to be adapted similarly to human employees. Thus, the expectation of an experiment or learning lab environment and involvement approach needs to be the same for the human contributor as it is for the machine. Both need to be given permission to learn and retest without 'fear' of a performance penalty, which is very typical in corporate environments that have been designed around outputs rather than generating tangible outcomes.

4.0 Conclusion

Leaders have a challenging role where they need to balance the interests of their organisations, both now and into the future, with their own personal values. Those who lead and direct organisations will need a degree of flexibility and agility to ensure there is constant validation that all changes being implemented are in line with the core values of their organisation. The impact of the COVID-19 pandemic has reminded leaders that the future is unpredictable and non-linear; it is full of loops of learning and therefore new strategies can be formed.

Leaders need to be open to understanding the impacts of AI. Leaders need to be able to sensitively manage the emotional responses, both their own and others, during the adaptation process. Leaders need to change the process of workforce design that has often been siloed and disconnected. They need to start thinking of the human component of their work; the customer, the employees and their peers, and explore futures scenarios about what innovation they can stop, rather than continuing to innovate even if the 'cost' is too high. Trust, a willingness to experiment, and to stop and try again in a new way is a critical part of leading organisations towards an AI influenced future.

Today's older leaders will need to embrace the next generation of leaders coming through. The young people of today are comfortable with AI and being augmented by it; the change effort is not as hard. Many young people have been brought up in a completely different world where technology and AI are part of their day to day life, learning and livelihood. Tolerance and openness to differences during the generational shift is going to be very important.

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MASTERY OVER "THE UNEXPECTED" VIA KNOWLEDGE-DRIVEN LEADERSHIP

TOM MEYLAN

Abstract

A brief examination of the natural history of alpha domination in large mammal species sheds light on critical leadership skills missing in many working groups of national significance, especially with respect to engaging unexpected events. Knowledge-driven leadership practices abstracted from the US space program are described in some detail as an alternative to instinct-driven alpha domination. Three aspects of "The Unexpected" are identified, and their appearance in the COVID-19 pandemic are used to explore differences in approach between alpha dominators and knowledge-driven leaders.

Keywords

Leadership; alpha domination; COVID-19; social structure; instinct; status assertion; mission success; unknown unknowns; rule of law; rule of market; evolutionary psychology

1.0 Recent Opportunities to Explore Knowledge-averse Organizations

Before diving into knowledge-driven leadership, let's take a quick look at a common alternative for comparison. When you apply the futurists' concept of *trajectory* to the theory of natural selection, you can examine the 40 million year long natural history of alpha domination in the social structure of large mammal species (Hermann, 2017, 87-89). The resulting trajectory provides a method to detect key, instinct-driven features in human alpha domination affecting the performance of working groups. Despite the vastly increased complexity of modern human living, instinct-driven alpha domination remains the most commonly observed organizing principle in social groups, businesses, and governments.

Alpha-dominated groups are classically described as groups submitting to a figure who frequently, and effectively, emits *status assertion signals* (SAS, sometimes in the form of threatening sounds or aggressive behaviors, sometimes in the form of nurturing or comforting members). The responses of group members are built on instinct-based interpretations of the SASs. Except for rivals contending for the alpha position, group members instinctively acquiesce to the alpha's SASs (Hermann, 2017, 48-50).

Alpha-dominated groups have a natural history tens of millions of years long in numerous mammal species. As such, neither language nor language-driven information has ever been used by alphas among these mammals to assert their dominance (Hermann, 2017, 93-94). Lack of language-like communication makes it difficult to take a proactive stance against "The Unexpected." The best an alpha-dominated group could achieve would be an instinct-driven reaction to "A Surprise" (also frequently observed in human groups). It is also quite likely that concepts like group identity and solidarity have not developed among these mammal species. If it is reasonable to apply such descriptors to members of these animal groups, we can say that radical egocentricity dominates responses to all stimuli, including alpha SASs.

SASs are not used to convey information of any quality, even though a human might use language to make a status assertion. For example, the 45th President of the United States often generated SASs of the form, "I'm smarter than (my generals, the COVID experts, etc.)," or "So-and-so is the most (corrupt, incompetent, stupid, ugly, etc.) person the world has ever seen." A variety of other SAS forms were used by POTUS 45. As pieces of language they are virtually meaningless. As SASs they were powerful with segments of the American population whose decision making processes are dominated by instinctive responses to alpha SASs.

We can quantify the effects of these presidential SASs on simple, do-or-not-do behaviors. The United States, comprising 4% of the world's population, recorded 22% of worldwide COVID deaths by mid-December, 2020 (Begnaud, 2020). This was driven largely by the POTUS 45's anti-masking messaging (a barrage of SASs delivered through most media channels), resulting in his base being half as likely to wear masks under any circumstance when compared to other similar populations (Ryan, 2020). In response to SASs pertaining to false assertions of fraudulent 2020 election results, over 2/3 of the individual states' Republican attorneys general and nearly 2/3 of the Republican representatives in the US House of Representatives went on record as defecting from the United States by signing onto the Texas suit to have the election results of four other states set aside (Market Watch/AP, 2020; Biden, 2020). These are substantial alpha domination effects. The critical observable here is the willingness of the alpha-dominated population to act so decisively against their own self interests (i.e., increased risks of disease/death; eventual collapse of the US government).

After we develop the characteristics of knowledge-driven leadership and the associated knowledge assets used by their collaborators, we will return to the use of SASs by alphas operating in the American free market to establish a national legal context that is often damaging to large portions of the citizenry. In addition, we will illuminate the limitations of alpha-dominated groups to deliver the complex systems and solutions needed to respond effectively to "The Unexpected," such as a worldwide pandemic.

2.0 Introduction to Knowledge-driven Leadership

This chapter will describe a knowledge-driven strategy for dealing with three forms of "The Unexpected";

1. possible surprise events for which preventive knowledge actually exists,
2. surprise events which appear in the form of "unintended consequences,"
3. events which are truly beyond foresight, but which can be mastered rapidly by reason of extensive success dealing with great surprises in the past.

The chapter will narrate the way knowledge-driven leaders of unmanned space missions make use of knowledge bases to reduce the number of unexpected events during any kind of mission. We will also narrate how the interaction between leader, team, and knowledge bases works, and how the components of a knowledge base are produced. Since a knowledge-driven approach to leadership functionally is somewhat uncommon, readers are referred to the business self-help literature that focuses on corporate culture formation. Books on the concepts of "the learning organization," (cf. Senge, 2010), or "the developmental organization," (cf. Kegan and Lahey, 2016) describe corporate culture ideals where a knowledge-driven leadership approach would be highly beneficial.

Lastly, the chapter will use this framework to show how some hypothetical political leader might deal with the unintended consequences generated by a national culture dominated by profit-only business mission profiles in the face of the COVID-19 pandemic. In this context, the main strategy is to avoid unintended consequences, since preventive knowledge does in fact exist for this cluster of issues.

The third form of “The Unexpected” will only be given summary treatment in a small number of places in this chapter. To summarize here, a corporate culture that embodies the habits needed to deal with Forms 1 and 2 of “The Unexpected” will often/usually be able to deal with being blind-sided (as rarely as it will happen to this group) better than competing groups whose culture can't.

2.1 Knowledge and the Leadership of Complex Missions

I am most familiar with space-based astrophysics missions from the US space program. One of my fellow managers at the International Ultraviolet Explorer Mission (NASA, 2016), Terry Teays, Ph.D, and I were encouraged by many project members to conduct a case study of the leadership and management approaches that made our mission such a great success, even by NASA's high standards. We interviewed all of the founding leadership of the NASA contingent as well as many of our peers and reports. From this study we produced *Optimizing Luck*, (Meylan and Teays, 2007) a how-to leadership manual for entrepreneurs putting high-tech and other science-driven businesses together.

We determined that ever improving mission success and extended satellite lifetime hinged largely on the management of change, especially unexpected change. Where a person like the former US Secretary of Defense Donald Rumsfeld would say, “There are...unknown unknowns,” (Rumsfeld, 2002) the rank-and-file astrophysicist would say, “So what? It's our job to reveal the unknown unknowns and engage them to the benefit of the mission.”

But to be fair, you don't have to start with the “unknown unknowns” to optimize mission success. There will no doubt be an extensive library of information that can inform a team on known paths to success for any given scientific mission profile. And by training, that's where the aerospace engineers (read: rocket scientists) and the astrophysicists start:

in the library and all online equivalents. This is the treasure that optimizes your mission design and profile for the successful management of "what *is* known"!

In the context of the US space program, there is extensive cross-talk among all of the personnel engaged in astrophysics mission design, development, launch, and operations. The mission personnel have engaged each other to get all mission-impacting information into quickly retrievable products, and have learned much in the process. Further, the team was well exercised in problem solving through the activities leading to fault-tolerant mission design.

This means that mission personnel are as well trained as possible to engage any unexpected event successfully. In very short order, the team will be able to find the relationship between the unexpected event and the systems designed to obtain the mission's objectives. This new relationship between "The Unexpected" and the mission might also hold an additional form of power relative to the mission. If the unexpected event can only be engaged as a setback or other type of detriment, then the relationship will teach the team how to keep it from hurting the mission any more than need be.

But, this relationship might show the team a totally unexpected opportunity instead. The unexpected event will generate unanticipated additional value from the resulting newly-defined mission activities. All this simply because team members are deeply familiar with and able to use the rich informational environment built up out of the intellectual resources of the members and the intellectual traditions within which they were trained.

2.2 Knowledge Bases

First, let's look at the knowledge context itself. As a rule, knowledge-driven missions form in a community (business, military, scientific, non-for-profit, etc.) with a well-trusted knowledge base. It is also usually the case that these types of bases are built up by careful observations, measurements, and record keeping. The better knowledge bases are governed by principles that demonstrate very stable relationships between the knowledge elements. Furthermore, empirical bases continue to evolve as more observations are collected, and errors are uncovered and removed. This often means that members of a mission team must be well acquainted with the appropriate knowledge base, be ready to deal with inadequacies in the base, and/or amend/correct the base in response to events that unfold as the mission progresses. Mission success frequently depends on the ability of team members, most especially the leader, to adapt to new learnings on very short time scales.

2.3 Knowledge-driven Collaboration

Second, let's note that the successes in the physical sciences come about because all of the members of the scientific community have been trained in the same methods for improving their shared knowledge base. And at the root of these methods are testing, verification, and replication of studies to reproduce results by other members of the scientific community.

In principle, there is no reason to believe that other communities couldn't make use of these types of knowledge bases to improve the chances of mission success. When a team or community grounds its activities in an empirical knowledge base, the cultural habits move toward building more knowledge instead of competing to win arguments (knowledge transfer vs. SASs). As opposed to status assertion, arguments become collaborative tools for finding principles that improve the team's performance on the mission. Emotional arguments that used to drain the team's energy get transformed into creative events that build team cohesion while they also add important content to the knowledge base.

To obtain this level of human synergy, leaders should seek people with expertise in a variety of aspects of the knowledge base. This expertise includes the methods used to extract practical information from the knowledge base as well as to improve it with new discoveries. Good team selection also depends on the leader's ability to bring on people who know how to work creatively with others. Most missions will have objectives that require building up new knowledge. Solutions will be difficult to obtain. Creative forms of collaboration must become a common part of the mission's regular activities.

2.4 Knowledge-driven Leadership

Third, let's look at how a leader can leverage the common language, methods, and procedures inherent in the knowledge base to build up a corporate culture that delivers mastery over "The Unexpected."

If a leader is coming into an existing situation (something other than a startup, for example) the first knowledge base to start to understand is the knowledge accrued by the new home organization. Now, either within this knowledge base or in other corporate records, the leader must seek out the organization's history in dealing with “The Unexpected,” what ever forms it has taken in the past. This onboarding leader needs to compare corporate knowledge to corporate experience of “The Unexpected” in order to determine why and to what extent important knowledge gaps exist.

Going forward, it is the knowledge-driven leader's job to eliminate this disconnect between the corporate knowledge base and the corporate experience of “The Unexpected.” There is often a lot of “low hanging fruit” to be harvested from this disconnect-closing activity. Many organizations under-appreciate the knowledge base that they've accrued and do not, therefore, mine it for innovative solutions to meet unexpected problems. For example, a colleague of mine introduced a very large customer to the concepts of call lists and escalation paths. Simple though these processes be, he immediately reduced the nearly daily experiences of “The Unexpected” for this customer (Meylan and Teays, 2007, p42).

Our NASA mission, by contrast, made great use of our knowledge base to uncover the history of the failure rates of the satellite's components as gathered from other missions. This type of knowledge supplies the first step in developing a software-based re-engineering plan to re-purpose remaining components to supply function lost when a major part fails. In the very least, such information tells you when to expect the next “unexpected” event on your spacecraft. That's the power of a knowledge base *when you make use of it*.

Perhaps the most important habit set in this bag of new tricks is managing personal, emotional responses to “The Unexpected.” Obviously, leaders have to have habits that keep their own instinctive, energy-draining responses from coming into play and clouding the mind. You can feel as mad and angry, or hurt and disappointed as you want. That's fine, and that's normal. But the other “normal” aspect of these negative emotional responses is to focus on them, to the exclusion of constructive activity, for harmfully long periods of time. It is that loss of time that the leader should strive to avoid. In mission settings, the loss of time can mean the end of the mission. In business settings the loss of time will certainly entail losses of competitive advantages. A knowledge-driven leader will demonstrate habits before the team that jump-start positive, constructive responses to “The Unexpected.”

3.0 Structural Descriptions of Missions and Knowledge Bases

Simple mission objectives, like optimizing profit in a venture, require a simpler knowledge base than business missions aimed at achieving a few objectives associated with "sustainability" along with profit goals. Scientific research writ large (as well as large military missions) has even more complex knowledge requirements, as a rule. More demanding even than these is the mission to govern a country using a form of democracy. The quality of recent political candidates may indicate that knowledge-driven leadership is an under-appreciated concept.

Knowledge-driven missions tend to have these elements in common:

1. A (potential) leader
2. The knowledge base resident in the leader's brain
3. A group of people who interact via some social structure; even if rudimentary, we can call this an organization
4. The knowledge base resident within the organization's culture (libraries, online equivalents, resident experts)
5. A need (or needs) that the organization has identified as important enough to fulfill
6. The environment within which the organization must operate to meet the need(s)

"Knowledge base" appears twice in that list. For most human beings in most times and places, knowledge bases consist of pre-tuned biochemical states, pre-wired neuro-circuitry, an unstructured catalog of experience, and various amounts of input from others who share their experience. Leaders who claim to "go with my gut," common among alphas, are using these instinct-composed knowledge bases.

There are much more sophisticated, data-derived knowledge bases in use every day, but they usually take a lot of time to learn how to use. People who study hard on a topic, perhaps in a degree or certificate program, end up with a highly structured knowledge base that often includes the methods and procedures for building novel solutions from it as well as adding novel knowledge to it. This type of empirical, evolving knowledge base can deliver extreme leadership power to people who commit to acquiring it.

The basic structure of an empirical, evolving knowledge base will usually include the following parts:

1. First principles
2. Primary data characteristics, which, as a rule, are extremely difficult to determine (quantities measured, units applied, etc.)
3. Knowledge and data publications, repositories, libraries, etc.
4. The currently accepted analytical framework, plus competing frameworks yet to be disproven
5. Standardized research methods, which evolve in tandem with the knowledge base
6. Knowledge base community verification (experiment/study replication, peer review of findings, etc.)

In very broad strokes, these are the features of a knowledge base around which a scientific, collaborative community structures its activities.

We can conduct a "thought experiment" mission to build socio-economic equality through strategies that generate equal Opportunity Access in the American economy. What would a hypothetical knowledge base for this mission look like?

THE KEY KNOWLEDGE BASE: an empirical knowledge base of republic-nurturing principles and practices explicitly designed for the missions of political leadership.

3.1 First Principles

First principles are the fundamental ideas upon which the knowledge base is built. Famous ones in physics are $E = mc^2$ and $\mathbf{F} = m\mathbf{a}$. Since these are expressed in mathematical terms they can be manipulated by virtually any mathematically valid formalism.

Quantifiable first principles are tough to find in the social sciences, but foundational concepts often present themselves, such as a "self-evident truth"...

> *All men are created equal.* (Jefferson, 1776)

Obviously, we can change the anachronistic language to "people." Here, Thomas Jefferson was asserting that the American rebels were peers of King George III (the American Declaration of Independence being composed of an imposing list of SASs). Other problematic historical issues with Jefferson aside, his concept is extendable to a concept of citizenship under a second first principle, here functioning as a context-defining concept:

...rule of law.

To keep the conclusion short, we can posit a concept of citizenship where under rule of law all citizens have equal status with respect to basic rights.

3.2 Primary Data Characteristics

It took "the physics community" around 2000 years (the millennia from Democritus to Newton) to converge on the foundational quantities of the physics knowledge base. That's how hard it is to figure out how a natural system works.

Social systems are worse, but here are some educated suggestions. A definition of truly equal peers is "one person, one vote." Social Power in a general sense doesn't work that way in the US. Economic Power is not actually regulated to prevent devaluing the "one person, one vote" balance. The current American legal tradition facilitates a variety of lawful channels for influence purchasing. Part of a mission to achieve equal Opportunity Access would entail eliminating such channels.

That being said, we can propose a form of expression that suggests the kinds of metrics we should be looking for:

$$\Delta OA(t) = \Delta SP(t) + \Delta EP(t) \qquad \text{Eq. (1)}$$

where OA stands for Opportunity Access, which when properly defined will generalize our concept of "empowerment" for an individual to take action to achieve a desired effect.

SP stands for Social Power, for which we need to identify key measurable quantities.

EP stands for Economic Power, for which we also need to identify key measurable quantities.

Δ (Delta) is a standard character denoting a change, and (t) denotes a time-dependent function.

Equation (1) says that Opportunity Access changes when either a person's ability to generate Social Power changes, or to generate Economic Power changes. To save time, we will assert without justification that a convenient SP or EP power unit in a modern, democracy-aspiring society is expressed in units of economic value. Just as in physics where we can apply energy units to a wide range of laboratory situations, we can apply units of economic value to a wide range of human relationship and commerce activities.

This is a common set of metrics: price/pound, price/gallon, price/mile, price/square foot, price/hour, price/month. Also as in physics, these units can be transformed from one situation to another. You will need so many hours of work to earn the needed dollars to pay for one month of rent, or ten gallons of gas, or a pound of chicken. This gives us usable ideas for units to measure EP.

SP can work in the simple manner we described for EP above, but there are some more difficult cases to consider here. For example, what do you measure to capture the Social Power value when a powerful friend applies personal persuasion to decision makers concerning your application for something, perhaps a business loan? The thing that makes this difficult to determine is that we don't understand the laws of conservation that apply to SP transactions. For example, one could say that the SP of the persuasive favor is the value of the loan. OK, but what did the favor cost the persuading friend (or was our friend shrewd enough to gain a little power by making the favor)? What costs for the favor will your friend exact from you? While it is likely that these soft, personal costs can be quantified, finding the right quantity to measure is still difficult.

Suffice it to say that for the sake of this discussion that units of economic value can get us a long way toward fulfilling our mission of building higher levels of OA for more and more citizens.

3.3 Knowledge and data publications, repositories, libraries, etc.

Here we can speed along a little bit. Our mission is to build Opportunity Access for every citizen. We think of knowledge products as belonging to our knowledge base if they give special place to some of our foundational knowledge-generating concepts.

The knowledge base quality can be measured by the speed with which OA improves through our efforts. Mission activity will generate experience that can be folded back into the knowledge base. Best practices should emerge as the base improves.

3.4 -The currently accepted analytical framework, plus competing frameworks yet to be disproven

-Standardized research methods, which evolve in tandem with the knowledge base

-Knowledge base community verification (experiment/study replication, peer review of findings, etc.)

For space, we are collapsing the last three elements of our empirical knowledge base here. These all drive the evolution of the knowledge base itself.

The knowledge base in our thought experiment contains a mission document that provides the needed mission statement and a framework that offers facilitation for innovation. The Constitution for the United States of America was written "in order to form a more perfect Union." In so many words, it explicitly includes our OA-building mission as the rationale for the Constitution: "...promote the general Welfare, and secure the Blessings of Liberty..." to the people.

The Constitution gives practical shape to the philosophy of Rule of Law vs. Rule of Regent in The Declaration of Independence drafted a decade prior. The Constitution is arguably the most successful model of practical social engineering in human history. It was designed to set aside the divisive aspects of the diverse interests of individuals and 13 states in order to build an international presence able to withstand outside powers like the British Empire. How can knowledge-driven leaders approach an unexpected national disaster with the Constitutional mission statement in mind?

4.0 The Unexpected Covid-19 Pandemic, Unintended Consequences from an Alpha-dominated, Profit-only Culture, and Knowledge-driven Alternatives

The strength of The Union is built up through the strengths of all of the individual citizens. Stealing or damaging a citizen's OA could be construed as illegal to the point of being unconstitutional. Conversely, improving a citizen's OA could be construed as aligning our mission with the Constitution's mission of improving the general welfare and blessings of liberty to the country.

It becomes instructive to think of "The Market" as a natural ecosystem, for, in fact, it is (Meylan, 2007, p. 24). The health and survival of almost every citizen now depend exclusively on the behaviors that build up trade and commerce. The Market falls under the jurisdiction of the Constitution. The Market must conform to The Rule of Law just like any other aspect of American society. When it doesn't, the OA of many citizens declines to detrimental levels.

By way of example, the inadequately regulated capital markets of the first third of the 20th Century precipitated The Great Depression. Consequently, comprehensive regulatory structures were put in place. Beginning at the end of World War II, however, business people mounted a steady attack on New Deal era policies. Their cries for "Free Market Economy" and related SASs still rally obsolete-but-effective anti-communist fears against regulation that would protect "We the People" from reckless SAS-enabled operators in The Market. The result is a country where citizens now live under the "Rule of Market" instead of the Rule of Law.

It is highly problematic, yet predicted by the trajectory we established over natural selection at the top of the chapter, that the alpha-dominated conditions permitting the Rule of Market include no practical knowledge base capable of engaging "The Unexpected" effectively. Rule of Market also provides no defenses for the OA of the citizens. If you can't compete, you lose OA.

Since 2010, nearly 2 Million people in the United States learned the knowledge base used for profit-only missions by earning their MBAs (Byrne, 2018). They had roughly 2 Million peers when they started to enter the workplace. This large leadership pool, along with numerous, more senior operators, has generated a spectrum of OA consequences for citizens that live lower down on the socio-economic scale.

Below is a number of small sections each headed by one or more bullets describing unintended consequences of Free Market practices in the face of COVID-19. These sections will contrast the relevant, "Rule of Market, profit only" motivation with a possible alternative consequence supplied by knowledge-driven leadership. These alternatives not only would have reduced the impact of the pandemic, but would have delivered comprehensive economic benefit in the times prior to this long-term catastrophe.

- a population of citizens that doesn't understand how their civil responsibilities to public health and safety relate to the exercise of

their civil liberties
- a class of policy makers and government executives who can't mount simultaneous solutions to both the public health crisis and the economic crisis that resulted

SASs building up the "taxes are evil" sentiment (Bush, 1988) in the country have led to a series of tax reductions up through the early 21st Century in the United States. Obviously, lower taxes bring higher retained profit. This situation has led to a variety of unintended consequences, perhaps the most important being the loss of the ability to educate citizens, especially in highlighting the role of patriotic duty in every day life.

The priority of public education has been declining steadily for some time, and has lost power to be effective, mostly because of reduced funding. People are losing OA for lack of current skills, and The Union is weakening for lack responsible citizens in every social class. Even the teachers themselves lose large amounts of OA because of the money they spend buying supplies for their students...whose parents don't have the OA to get them.

Ironically, profit-only leaders apparently do not understand the need for investment in The Union itself as a major success factor for their businesses. How can business leaders invest in the ability of individual citizens to deal with "The Unexpected" that often afflicts their business missions? Minimally, preventive maintenance has to be applied to the intellectual horsepower of the nation supporting their businesses, and that means really good public education. On the upside, an innovative Union absolutely demands great education, or the current profit-only captains will soon be running dying businesses because their products and services are obsolete.

Investing real money in the successful education of "We the People" delivers great returns. The education of citizens helps them reduce the the number of times that "The Unexpected" appears, as well as reduce its impact when it does occur. Education reduces the ignorance that creates "The Unexpected." It builds up individual OA. Education helps to "form a more perfect Union" by building citizens with knowledge-driven lifestyles.

- the disruption of food supply chains
- the loss of income to family farmers

As a rule, American profit-only leaders hold an extremely deep faith that calamities never occur. COVID-19 has illuminated this, showing the broad range of unintended consequences in a wide variety of business areas. Even though the “no calamity” hope is patently false (the knowledge-driven viewpoint), profit-only decision makers often don't buy prudent (or required) insurances. They don't usually draft and test disaster engagement and recovery plans. There aren't any Plans B, C, or D to spin up alternative operational methods and procedures. That's all thought of as too expensive and detrimental to the profit-only viewpoint.

A variety of unintended consequences appeared when some segments of the food industry started losing low wage workers. During the early months of the pandemic it became clear that massive inventories of food resources might go to waste while at the same time millions of families were losing their incomes; i.e., their OAs were going to drop close to Zero. In fact, the OAs of many of the business participants in the American food supply web were also going to take big hits.

How might this situation be avoided if you change the dominant business mission profiles from profit-only to OA-building? A knowledge-driven leader will dive into the requisite knowledge base(s) to identify options not currently in play. Think of the meat packing plants affected early in the pandemic (Gallagher and Kirkland, 2020). If the profit-only driver is relaxed, what measures can be taken if the work force's availability is threatened for any reason? How many general operational changes can the knowledge-driven leader pull together to prevent loss of workers from health or safety reasons when profit-only motives are relaxed? Probably a small, but significant, handful.

A knowledge-driven leader will be able to weave answers from well-chosen knowledge bases into contingency plans ahead of time. The key value of pre-planning is the amount of response time you save to build the needed relief for citizens. Time is always the driving, critical success factor when dealing with the appearance of “The Unexpected.”

- the collapse of small business activity
- the impairment of American society to operate smoothly without the participation of the lowest paid workers in fundamental service jobs

It is currently unclear how various business sectors will recover from these unintended consequences. It is estimated that between 60% and 70% of restaurants in the US will not re-open at all. What kind of federal response could have buffered these people from an Unexpected Event of such magnitude? How does a knowledge-driven, OA-protective federal paradigm put together an economically safe, comprehensive, national economic shutdown of indeterminate duration?

Before anything dreadful befalls The Union, the Cabinet Departments drill down into their knowledge bases to project the quarterly costs of government services and private sector activities that are essential and must be kept running under any scenario. They then return to their knowledge bases to determine the likely quarterly costs of placing each economic sector on hibernation support, or suspended animation, or whatever metaphor helps drive the point home. This is the preservation strategy for as much OA as can be sustained. Lastly, the Departments drill down again to project the cost of rebooting, or re-initializing the sectors in order to restore every citizen's OA in the shortest time possible.

In extreme cases, like the COVID-19 pandemic, it's not that the entire economy needs to be shut down. However, as in that pandemic, most sectors may have to change many operational procedures, as we observed for months of 2020 on live television news. Now, under the profit-only paradigm, you have to be able to time responses to every aspect of the long term calamity precisely in order to minimize profit loss; but this leads to a great deal of OA loss if the predictions are wrong, especially if death becomes a large category of OA loss. Under an OA protection protocol, though, the protections are put in place up front to minimize the effects of the calamity as the primary federal strategic response. Lives saved, resources conserved, OA kept strong and ready for recovery activities.

- the loss of medical coverage for millions who lost their jobs
- the disparity in access to medical care between whites and everyone else
- the extreme expense of managing pandemic costs in the multi-payer health system (one patient having to do business with multiple incorporated providers to regain health during a major crisis; responsibility-to-pay conflicts between insurance companies) (Nguyen, 2020)

The American healthcare system continues to experience a number of unintended consequences from driving operating costs down to the bone. Again, in the belief that disasters never occur (i.e., “The Unexpected” never happens), the profit-only, anti-tax policy structure of the US created an environment where millions of families lost their health coverage when the primary income earner lost their job. Some of these workers could afford to pick up COBRA, but many could not because they had neither income nor savings to pay ongoing premiums.

Knowledge-driven promoters of OA start with the assumption that the mere existence of the concept of insurance, and risk-bearing instruments in general, demonstrates a need to protect citizens against "The Unexpected." Insurance affirms the existence and to some extent the nature (ironically, as defined in any insurance contract) of "The Unexpected." The pandemic has now demonstrated the instability of an employer-based healthcare system. All manner of OA was lost. In "a more perfect Union," this is unacceptable. Only a well constructed public healthcare system would have prevented this form of OA loss.

"Who's going to pay for this," many immediately ask, including those who would benefit most from a Union-supporting healthcare system. The answer to this SAS is immediately obvious from an OA-building perspective. ***"Value" is generated by individual citizens.*** *Corporations, partnerships, and sole proprietorships merely aggregate this value.* As with a great system of education, a great system of healthcare is an investment in the strength of The Union. A well-crafted system would include the rules for apportioning this citizen-generated value for public healthcare establishment, operations, and ongoing improvement to provide, perhaps finally, the world's best healthcare. The value aggregators provide the funding, investing in the strength of the market, and the strength of the American citizen. It's a knowledge-driven choice, not a SAS-encumbered riddle.

- the inability to provide PPE to medical institutions (Solman, 2020)
- the inability to provide the needed volume of testing supplies
- the inability to conduct real-time contact tracing
- the inability of federal agencies to coordinate with state and local agencies to support needs

When it comes to American business leaders sending jobs overseas, it becomes difficult to apply the adjective "unintended" to the national employment consequences. Profit-only consequences appear in a number of places here. Many hospital systems opted to save the cost of stockpiling a judicious inventory of consumable resources in favor of "just in time" delivery of supplies. Unfortunately, the profit-only strategy of shipping jobs overseas made it impossible to acquire medical consumables at a rate that matched the pandemic's unexpectedly ravenous appetite for equipment and testing supplies. "Just in time" simply was not possible with so many profit-only missions touching the healthcare system (Solman, 2020).

Presently, American profit-only mission leaders freely speak of two reasons for moving manufacturing jobs overseas: to avoid American labor costs and to avoid the expense of American regulations imposed on manufacturing to safeguard various resources, including human resources. These are unapologetic profit-optimizing rationales. Instead of aggregating the value generated by Americans, American business leaders make higher profit by aggregating the value generated by people of other countries. This means that the OA that would have generated the value needed to "form a more perfect Union" is lost to American citizens.

An economy that optimizes OA growth for individual citizens sidesteps the limitations of a national level, profit-only economic mindset. The knowledge-driven leaders of the near future will be able integrate business-worthy profit generation into its proper place in a small list of national, "more perfect Union" priorities. Improving OA for citizens with manufacturing jobs builds personal buying power, and improves access to better education, nutrition and healthcare. As citizens act on their EP, the GDP expands.

This indicates that the OA for businesses grows proportionately with OA growth for citizens in a knowledge-driven culture. Onshore manufacturing improves the national readiness to handle "The Unexpected" more effectively. Instead of being caught flat-footed by obsolete, profit-only strategies, an American manufacturing base can respond more nimbly to changing national needs. Medical supply shortages might still appear in some future, COVID-19-like event, but between pre-stocking an inventory of vital supplies and the ability to quickly redirect manufacturing output to meet emergency demands, the need for individual physicians to decide in real time who lives and who dies should not appear, ever again.

5.0 Summary of Concepts and Concluding Remarks

Knowledge-driven, mission-oriented leadership, as practiced within specialized US government departments and agencies, is offered as a generalizable framework for most leadership responsibilities coming down from the future, including governmental leadership. Note that this approach in not unique to the American context, the US-centered examples aside.

In practice, conducting a knowledge-driven mission to successful completion is an exercise in social system integration. As noted in our opening trajectory, the natural history of alpha-dominated groups did not give rise to the tools of social system integration. Leaders and team members have to be trained to work with sophisticated knowledge bases. This includes knowing how to expand and improve them based on real-time experience. The pattern described in the text has been successfully applied in a variety of technology-based missions in the private sector.

A lot of text was devoted to describing the nature and functions of empirical, evolving knowledge bases. These deliver a very dynamic form of intellectual collaboration to a mission-oriented community. They help to reduce the possible number of events that are unexpected because of ignorance. Knowledge bases are the source of innovation, which is so frequently vital to the success of most missions.

We compared missions that had a single mission objective, profit generation only, to missions that could meet a profit motive as well as deliver socio-economic supports for other parties, most usually identified as "citizens." Free market shortcomings that appeared in the context of the COVID-19 pandemic were contrasted with approaches provided by knowledge-driven missions. ***As a rule, the biggest difference between the two types of missions was in their powers to succeed in the presence of large scale, unexpectedly changing conditions.***

5.1 ...Three Closing Points on Why This Works...

1. Knowledge-driven leaders create extensive amounts of lead time for themselves to engage "The Unexpected" because they do not merely guess or anticipate what might happen. They actually figure out what those events will be when they happen. The longer the lead time, the better able the team is to either completely avoid (as in unintended consequences), fix, or in many cases actually exploit, the unexpected event for positive gains.
2. Knowledge-driven exercises undertaken by such leaders are used to develop and flesh out options for dealing with projected events, which are no longer "unknowns." These exercises also trickle down into the corporate culture, building option-generating skills in the entire team.
3. Knowledge-driven leaders, team members, and the corporate cultures that surround them are thus capable of extremely rapid responses

(either generating lead time as warning signals become more intense or simply reducing the time to deploy the solutions), when compared to lesser prepared teams, to engage events that were truly unexpected. These people know how to dive into their knowledge bases in order to draft and deploy a number of options to prevent great harm, and if possible, to convert an unexpected event into great opportunity.

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Leadership: Foresight for small businesses

Verne Wheelwright

Abstract

Foresight enables and encourages you, a small business owner, to lead yourself and your business into the future. By exploring the future, making plans for plausible scenarios and creating strategies to take your business through each of those scenarios, you have created pathways to multiple futures. That is leadership.

Keywords

Small businesses; trend analysis; scenarios; driving forces; vision; action plan

Small business is different!

That seems obvious, but…

Foresight methods have been part of successful business practice for decades, although the methods and the success have been focused on large businesses. This is in great part because those methods (strategic planning and scenario development for example) were developed by very large organizations for their own use, usually on an international scale.

In practice, the traditional methods for exploring and planning for the future work very well for small business, but they work best when they are applied in a different manner than typical practice in large organizations.

Many small business owners and managers have found it a challenge to apply foresight methods and long-term planning to their businesses. There are two primary reasons for this difficulty.

Although large organizations employ futurists or retain professional foresight consultants, small businesses tend to rely on the knowledge and experience of the owner(s) to plan for the future of a small business.

Foresight methods work well for small businesses, but those methods work best when applied differently. What do I mean by “applied differently”?

The first statement implies that small business owners need to educate themselves in foresight methods. For some time, that knowledge has been scarce or expensive, but today there are a great number of books available at bookstores and on line, written by experienced futurists who are sharing their knowledge. There are also professional futurists and educators who offer classes and webinars.

The second statement suggests that small business owners can benefit from applying foresight methods to their own businesses by recognizing the principle difference between small and large businesses…size, and taking advantage of that difference. That will be the focus of this chapter.

Leadership

Foresight enables and encourages you to lead yourself and your business into the future. By exploring the future, making plans for plausible scenarios and creating strategies to take your business through each of those scenarios, you have created pathways to and through multiple futures. That is leadership.

One of the well-worn books in my bookcase is “The Leadership Challenge” by Kouzes and Posner (2002). The authors questioned more than 75,000 people in leadership positions in business and government, asking what traits were most important. Respondents chose honesty first, and “forward looking” as the second most important trait in leadership. “Leaders must know where they’re going if they expect others to willingly follow them.” (Pages 24-28).

Now, before we start, here’s an example of an individual who started a small business and knew where he wanted his business to go. In his book “Shoe Dog” (2016 Scribner, NY), Phil Knight describes a journey that is typical for many small businesses. Phil started Blue Ribbon Sports and built it into Nike before universities had started offering courses and degrees in Foresight and Futures Studies, but his story is inspirational for small business owners. Did he have a plan? Of course! You have to have a business plan to borrow money from a bank, but his plan was more than that.

Importantly, Phil knew where he wanted to go, changed or adjusted his plans and strategies whenever needed, and kept going.

Where does the leadership to the future come from?

Futurists will have to take the lead to bring foresight methods and practices into small businesses. University degrees in small business and entrepreneurship are still relatively new, and courses or degrees in Foresight and Futures Studies are still not in the mainstream. Small business needs foresight, but practicing and professional futurists may have to develop the tools to bring foresight to small business.

Where do you start?

That's what this chapter is all about: how small business owners can learn about foresight and apply that knowledge to the future of their businesses. For guidance, we'll start with what futurists believe.

1. The future cannot be known (but it is possible to make educated guesses about the future).
2. The future is not predetermined (so, more than one future is possible).
3. The future can be influenced by the actions of individuals or groups in the present.

Those three thoughts provide a foundation that is simple and easy to understand and are drawn primarily from the works of Dr. Wendell Bell's "Foundations of Futures Studies" written in 1997 and published by Transaction Publishers. From these foundations, individuals can start thinking about the futures of their own businesses, keeping in mind that the actions they take now may change the future!

Stages of business growth

First, what can you know about the future of your business?

Recognize that every small businesses must pass through a number of stages of growth. Large businesses have already passed through most of these stages, but a new or young business will have to cope with the early stages and plan for them.

If you understand the stages that are ahead of you, you can start preparing and planning for them now.

Common stages of growth include:

- Concept stage- the idea for the business.
- Planning stage- seriously testing your concept and planning how to make it work.
- Startup stage- the business now exists.
- Struggling/surviving stage- struggling to grow and become profitable.
- Growth stage- sales and revenues are increasing.
- Maturity stage- business is established and maintaining balance.
- Decline stage- shrinking sales and profits.
- Exit stage- Sell, transfer ownership, or close.

The stages in this list were selected from several lists of “Stages of Business Growth” on the Internet. Selections for the list were based largely on my own experience, nearly sixty years in small businesses, as well as the doctoral research I conducted during 2000 to 2006.

Look at “Struggling/surviving”. Most businesses experience this stage, but some businesses do not survive. Knowing that this stage is coming will help you plan and prepare for it. Careful cash flow management is often an important part of surviving this stage. In some cases, talking to a customer about solutions to your potential cash flow problem may provide a solution. If the customer really needs your product, then paying you quickly helps assure the customer of a consistent supply.

The value of the list of stages of growth to a small business is that it suggests a path or a sequence of stages to the future that most businesses pass through over time. The advantage of this list is that you can think about and plan ahead for each stage and consider options for how each stage may unfold for your business.

For example, look at the last stage, the Exit stage. How do you plan to exit your business? Do you plan to grow your business then sell it or take it public? Do you expect to operate this business until you are ready to retire? Will you pass your business on to family members? Or will you just close the business when you are done? If you make a plan now for exiting your business, you will be prepared when the right time or opportunity arises.

The Stages of Business Growth suggest some experiences a business must pass through as the business grows over the years. This list of stages provides some guidance to the future, and that is the purpose of foresight…anticipating and planning for the future. Forces of Change are present in the business every day of the year.

It will be valuable for you to think about each of the stages of growth in advance and understand your best alternatives or opportunities for each stage. This applies to every stage. Explore and understand each stage, anticipate the possibilities or risks, and be prepared to deal with whatever occurs.

Forces of Change

Futurists work with a number of different methods to help businesses anticipate and explore plausible futures, and most of those methods include consideration of the forces of change. In the world of large organizations, including business and government entities, the forces of change generally include these forces:

- Social
- Technology
- Economic
- Ecologic
- Political

These forces may be seen at all levels of business and government, Global, National, and Local and are referred to as the "STEEP" forces. (There are variations on STEEP, such as STEEPLE, which adds Legal and Ethical forces). Each force has specific characteristics or impacts that can (or must) be dealt with.

Small business

This may be a good place to define small business. For purposes of this article, consider a small business as a business of from one person to one hundred people. That meets the definitions of a large portion of the world. The United States includes businesses with up to 500 employees as "Small Business", but that is exceptional and involves political considerations,

At the same time, the United States does have good statistics, and some of those, provided by the Small Business Administration, count more than 30 million small businesses in the U.S. Of that number, more than 25 million businesses have no employees, and may be interpreted by some as one-person businesses.

Small Business Forces of Change

Although a small business owner should be aware of the STEEP forces and their directions of change, the more immediate concern should be with six very real forces in a small business:

- Finances
- Location
- Operations
- Management
- Marketing
- People

Why is there such a difference between the forces that drive a large organization and the forces listed here that drive a small business?

There are several reasons.

First is simply scale. Large organizations may operate in many parts of the world, and on a scale that can influence or even drive change in any of the STEEP categories.

Second, most large organizations have trained, experienced, specialists in every management position at every level of the organization. Small business owners often fill all the positions of responsibility in their business. This is most obvious in single-person businesses. Small businesses with multiple partners may have more diversified experience, and businesses of any size can hire or contract for services or management. Many small businesses contract for bookkeeping and accounting services as well as legal counsel rather than adding employees and overhead. Considerable advice or short-term service is also available on the Internet.

All this brings us back to the important or driving forces in a small business. Here are some brief descriptions of each.

Finances Everything to do with money in your business. This includes cash, receivables, payables, cash flow, assets, debt, taxes, insurance and accounting.

Location Wherever and everywhere your business is located. This domain includes land, buildings, parking areas, traffic count, zoning, city, country and access to facilities such as water, utilities, freeways and port areas.

Operations The production of goods and services, including quality control, reports, tools, equipment, processes, inventories, and logistics required to move raw materials in and finished goods out.

Management The leadership that provides direction and accountability for the organization.

Marketing The portion of the organization that is devoted to promoting and selling the products or services provided by the business.

People All the people in, and directly related to the business: owners, managers, staff, suppliers, advisors, contractors.

What is the importance to small businesses of these two lists, Stages of Business Growth and Forces of Change? Both lists help small business owners apply internationally recognized methods for anticipating and preparing for the future to their business. In addition, this list of Forces of Change is made up of forces with which a small business owner deals every day and exercises some measure of control, as opposed to the STEEP forces, over which small businesses have little or no control.

In dealing with change, small businesses have one important advantage over large businesses in that small businesses can make decisions and take action very quickly. There is a risk that accompanies that advantage, and that is the temptation to act too quickly before the effects of an action are carefully considered.

Change happens!

Some change is completely out of your control, so it will be valuable for you to recognize change and anticipate how it may impact your business. Here are some examples of change.

- When automobiles became affordable, streets and roads were built while horses and carriages faded from view.
- Radio dominated the airwaves until the arrival of television.
- Airplanes, then jets changed travel (and war) around the world.

- When personal computers were introduced, the typewriter industry disappeared within 10 years.
- Cell phones have replaced many telephones, cameras, wrist watches, and even computers.
- What changes will Covid-19 virus bring about?
- Will artificial intelligence affect your business?
- How will global warming affect your business or your life?

Exploring the future of your business

Exploring the future is neither difficult nor complex, but you need a starting point. Futurists generally plan for ten or more years into the future, which is a reasonable time period for most businesses. So your first question to answer is, “What do you want or expect your business to look like in ten years?”

Give your answer some serious thought.

Start with the present. Where are you now? Which stage of development or growth is your business in now? What stage do you expect to be in ten years from now? What do you expect your business to achieve each year over the next ten years? Do you have a business plan now? Do you have a marketing plan?

Now, ask yourself again, what do you want or expect your business to look like ten years from now?

What are your values?

What is important to you and to your business? Money? Honesty? People? Success? Values are an important part of your business.so it is a good idea to take some time and think about your personal and business values and how those values are seen by employees, customers and suppliers.

Forces of Change-Global, National Local

The forces of change will affect you and your business.

Which forces are going to cause change in your business over the next ten years? Keep in mind that growth of your business is a force of change.

Futurists spend a lot of time studying trends. They generally start with a technique call “360 degree scanning”. The term refers back to the days of sailing ships, when one crew member stood in the ”crow’s nest” above the rigging of the vessel, where he had a 360 degree view of everything around the ship and could alert the crew to weather, ships, land, whales or anything of importance.

Futurists read, they watch, they listen in order to anticipate change. You can learn something about the future by watching what is happening around your business (and the world) to identify trends. One trend to watch for is the business cycle. For example, how long has it been since the last downturn in the economy? Are there any indicators that a downturn is due?

An internal trend to watch is aging. How old will you and important members of your business be in ten years? How will they be different, and how will that affect your business? Will anyone retire? How will you handle that?

Will your business be in the same location in ten years? What could cause that to change? Communities, counties and states commonly have long-term plans that suggest physical improvements and changes several years in advance. Planning maps are generally available to the public, and may be helpful to you for your own planning.

How would change in technology (artificial intelligence), logistics (self-driving vehicles), and growth, for example impact your business?

Change can come from any direction and at any time, but anticipating change will help you plan and prepare for the future of your business.

SWOT

SWOT analysis is not really a futurist method, but is a tool that fits in well with helping a business owner think about the future. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. Start by asking yourself how your business stands in each of those categories.

For example, what are the strengths of your business? How can you use those strengths to the advantage of the business, now and in the future? How can you develop more strengths? How do you deal with your weaknesses? Can you turn them into strengths, or at least move them up from being obvious weaknesses? What opportunities do you see for your business? What do you have to do to turn those opportunities into successes? Are you facing any threats? Competition? A falling business cycle? Can you build a defense or reduce the risk?

Scenarios-How futurists explore the future

Scenario development is the method most clearly identified with foresight and exploration of the future. Briefly, scenarios are stories about possible and plausible futures.

Royal Dutch Shell was a driving force behind the worldwide development of the scenario method over the past nearly fifty years. The history of that development of scenario methods as well as current scenarios about the future are posted on their website (www.shell.com). Search the Shell site for "scenarios". A word of caution. The scenarios developed by Shell tend to be very large-scale. Don't be intimidated, simply see them as examples of what can be done with scenarios.

For your business, a simple paragraph for each scenario is probably quite adequate, because the reason for doing scenarios is to help you think about what the future for your business could be.

You should develop at least four scenarios about the future of your business, including:

- Continuation of the present into the future scenario
  The forces of change are calm, and the future is much like the present. Your scenario might show how you could grow your business without the pressures of outside forces.
- Best plausible scenario
  The forces of change are all in your favor. Build a scenario that shows how your business would benefit from a favorable world.
- Worst plausible scenario
  The forces of change are all working against you and your business. How will you survive?
- Aspirational scenario
  In an aspirational scenario, your business is motivated by a desire for a specific goal or accomplishment.

Wild cards…a surprise scenario

Many futurists use the term "wild card" to describe an unexpected or surprising event or scenario. Wild cards can be either positive or negative, but they are always a surprise.

To construct a wild card scenario, you might ask yourself what kind of event could suddenly make your business surge forward, or what kind of event, internal or external, could put you out of business.

Although I suggested writing "one paragraph" scenarios, you can make your scenarios as long as you like. The benefit of longer scenarios is that you will think more deeply about the future, about what causes change, and how you might bring about or deal with change that occurs around you.

Strategic planning

Twenty years ago, strategic planning was controversial and often misused, yet the concept is simple and logical. Develop a plan for how you are going to reach the future you have chosen.

The term "strategy" is borrowed from the military, but can be reduced to one common term, "How". For you, strategies are "how" you are going to achieve your plans for the future of your business. For example, start with the driving forces in your business:

- Finances
- Location
- Operations
- Management
- Marketing
- People

Apply simple strategies to each of these forces in your business. For example:

Finances: Don't lose money!
Location: Protect your property!
Operations: Keep everything running smoothly!
Management: Know what's happening!
Marketing: Take care of your customers!
People: Take care of your people!

Yes, these strategies are simplistic, but they work! You can expand upon them, and you should. You will need to develop long term strategies for many areas of your business. In most cases those strategies will answer the question, “How?” How will you manage your cash flow? How will you avoid losing money? How will you pay your bills on time?

> I’ll share with you a personal experience. When my employer retired, I decided to start my own business. I knew my suppliers and also my customers, but when I looked at the numbers I could see I had a gap. By the time I completed an order, my thirty days allowed by suppliers was up. Too tight. I went to my best customer and explained the problem. He told me to bring him an invoice and a weight slip every time I delivered a container-load of material and his bookkeeper would write a check while I waited. Problem solved! Huge headache averted,

Think about strategies that would solve problems in your business, now and in the future.

> One example: How will you prevent people from stealing from you?
>
> Partners?
> Employees?
> Suppliers?
> Customers?
> Others?
>
> That may sound too blunt, but it is a fact. Some people steal, if given an opportunity. Your responsibility as a business owner is to remove the temptation and the opportunity. Devise strategies to protect your business. Once cash is gone, it is very difficult to recover.

The statistics in the United States (Bureau of Labor Statistics) suggest that 20% of small businesses fail in the first year, that only half survive five years, and only a third survive ten years. Business failures are very often related to cash flow and changing business conditions. Some of the problems that can lead to failure can be anticipated, and sometimes even closing a business is a strategic decision.

Visioning

Futurists often recommend that you try to develop an image of your future in your mind, a vision of your preferred future.

Presuming a ten-year plan, what should your business look like ten years from now? Journalists are taught to ask themselves several questions about any story or project they are working on. That is good practice in business as well, so ask yourself these questions about what your business will look like ten years from now.

Who?
What?
When?
Where?
Why?
How?

Ask yourself about the “Who?” question, for example, over the next ten years:

Who will be managing your business?
Who will be your customers?
Who will be your suppliers?
Who will be your advisors?
Who else will be involved?

When you can ask and answer similar questions for “what, when, where, why, and how” about the future of your business, you should be able to form an image of your business in your mind … your image, or vision, of the future of your business.

Creating an Action Plan

What do you have to do to achieve your vision? What are effective strategies that will help you build and guide your business into the future?

Your action plan will include a list of actions you want to take, strategies you want to execute, a sequence of those actions and a target date or year for taking each of those action.

Your action plan should also have a completion date, or at least a year, by which the plan is to be complete.

One way to structure an action plan is to start with the six forces of change in your small business. For each force (Finance, Location, Marketing, Operations, Management, and People), ask yourself what you would like to accomplish or change over the next ten years.

For example, in Finances, what do you want to change or accomplish over the next ten years? If you are doing your own invoicing, record keeping, and taxes, you may want to contract or hire a bookkeeper soon. If your cash flow is tight, you may want to negotiate better terms with suppliers and customers. You may want to plan for an accounting firm to review accounting records and file taxes in the future as your business grows. If your business is growing, you may want to plan borrowing to finance a future project.

You can think about and plan for the next ten years of projects and strategies for each area of your business. Then, think about the strategies you will utilize in each area and for each action. Even if you are a one-person business, this process may take some time. This process is worth your time and effort, as you are actually planning the future of your business.

Backcasting

Creating an action plan can start out as a simple, logical process, but that process can get mired down in the middle. Futurists have a very effective tool for thinking about the future that also works in your planning process.

If or when you reach a difficult point, stop, and take a different approach

> Imagine you have just completed your action plan. What was the last action you had to take to complete your plan? What was the action you had to take before that? And before that?

This approach is call “Backcasting”. It is a simple and effective tool for thinking about the future. After you have worked on the action plan from both directions, your plan should be complete.

Follow your plan!

If your business changes, change your plan. If the world around your business changes, change your plan. If you discover you are in a different scenario than you were planning for, change your plan.

The point here is that this is your plan, and you should be ready to update or change your plan as circumstances around your business change.

Most important!

Follow your action plan. Keep it in a place where you can refer to it regularly. If you put your plan in a file folder in a file drawer, it is out of sight. Possibly for a long time.

Each year, while reviewing your plan, make a plan for another year. This will keep your plan current and you will always have a ten-year plan.

Long term perspective

This chapter has focused on helping potential and existing small business owners understand that planning for the long term future of a small business is valuable, yet not difficult. Anyone can do this!

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Values and Foresight-Infused Governance: A Practical Guide for Directors

Jan Klakurka & Candice Chow

Abstract

Despite enhanced regulatory oversight of corporate governance and transparency in reporting, scandals and unintended missteps by organizations continue to harm individuals, citizens and the planet. The current COVID-19 pandemic further spotlights opportunistic behaviour. Costs from corporate negligence to outright fraud and the collective climate crisis are borne not by businesses, but by governments, taxpayers and future generations. Questions continue to be asked of how boards of directors can condone such behaviour, why they did not see it coming, whether or not they could have intervened sooner, and who should be held accountable—all despite more stringent governance processes, policies and mandates. In this chapter, we challenge directors to rethink corporate governance in the midst of one of the biggest challenges of the 21st century. Governance overly focused on oversight, planning and risk management may be missing an important component of an effective board. We posit that boards of directors should be selected to govern for sustainability, with a long-term perspective, and as stewards for both shareholders and stakeholders-at-large. Corporate responsibility and irresponsibility hinge on a shared understanding and enactment of moral, ethical, social, and environmental values. Absent of these values, organizations are prone to forgo responsibilities and pursue short-term benefits. With this imperative, board member responsibility extends beyond due diligence, challenging management assumptions, applying sector expertise and honing and leveraging foresight competence to champion one's own set of personal values applied in helping organizations imagine and commit to paths oriented toward desired future(s). We introduce two new concepts as the gold standard for 21st century organizational governance: ***Values-driven Futures-literate*** (***VDFL***) directorship and ***Values-infused Foresight-driven (VIFD***) board governance.

Building on these two concepts, we present a Director's practical guide to understanding desired values-portfolios for their respective firms and to strengthen their futures literacy and foresight competence. We conclude the chapter with a set of board principles for current and aspiring Directors for use in board evaluation and recruitment, to build values awareness and alignment amongst directors and their organizations, and stimulate proactive, forward-thinking and long-term orientation.

Keywords

Governance; Foresight; Futures; Values-based Leadership; Boards

1.0 Introduction

Our current global environment is facing numerous existential crises. The prevailing narrative is that a pandemic took the world by 'surprise'. Supra-national organizations, nation states, policy-makers, and multi-national enterprises (MNEs) all failed to either recognize or act upon signposts of a possible pandemic and the ensuing havoc was wreaked not only on the health and wellness of individuals, but also meant economic ruin for much of society. A few called out the pandemic as not a black swan event (e.g., Søilen and Alipour, 2011; Kimball, 2006), but fewer still recognized it as a lack of foresight and values-imbued contextual actions from diverse players.

The degree of unpreparedness for disruption of an organization is an indication of it being fraught with bottom line-oriented, personal and short-term ambitions and decisions that reveal a lack of understanding of what might be, mimicry over creativity, and a rubber-stamping of "today-extrapolated-to-tomorrow" plans. Current governance practice appears to have conveniently ignored one of its fundamental utilities – to govern for the interests of all stakeholders. Instead, it tends to favour short-term shareholder needs and willfully overlooks signposts of future events. Whether from narrow-minded groupthink or ineptitude, these deficiencies create contextual "no-fly zones" that can be tantamount to compromises of independence. While some of these outcomes are the result of rogue executives, or of those responsible for hiring and firing such leaders, Board of Director members ("Directors" or "Board members") are ultimately responsible. The learning from unprecedented government intervention in business operations during the 2020/2021 global pandemic has taught businesses a harsh lesson – businesses must be prepared and boards and their Directors are ultimately fiduciarily responsible.

In this chapter, we examine the current construct of corporate governance and challenge legacy practices. We argue that by judiciously embedding morality and human values, and duly ingraining Strategic Foresight (SF) in governance, businesses can enhance their potential impact for both societal and economic betterment. We introduce two new governance concepts for the 21st century: 1. ***Values-driven Futures-literacy (VDFL)*** at the Director level; and 2. ***Values-infused Foresight-driven (VIFD)*** decisions at the board level. In the final section, we share some principles and practices that boards can implement in their organizations, to raise personal futures literacy ("FL") in individual board members and foresight competency in the overall board governance body.

2.0 The Fissure in Governance Practice

Corporate – broadly, organizational – governance plays a pivotal role in ensuring accountability and responsibility. According to the Australian Security Exchange (ASX) [2007],

> *Effective corporate governance structures encourage companies to create value, through entrepreneurialism, innovation, development and exploration, and provide accountability and control systems commensurate with the risks involved.* (p. 3)

As we examine value creation derived from corporations, questions naturally arise: but for whom? accountable to whom? for how long? and with a value as priced in what manner, incorporating what costs? Answers to these questions loom large over the future of businesses and the societies within which they operate.

Corporate governance is a continuously evolving practice and according to ASX (2007), "Good corporate governance ultimately requires people of integrity." (p. 22). Engelbrecht (2012) stressed that corporate governance is of global significance and is inherent to the long-term success of both corporations and countries. In summary, corporate governance goes beyond the function of a control system, embodying morality, values and long-term orientation.

In the 21st century, a number of events have reshaped corporate governance and continue to do so. Scandals such as the likes of Enron (Benston and Hartgraves, 2002), WorldCom (Unerman and Dwyer, 2004) and Disney (Meyers, 2020) have not only rewritten the accounting rules, but also reshaped how governance should be executed by separating the power of the Chair and CEO, advocating the independence of non-executive Directors, and changing remuneration and incentives of both the board and CEO, among others.

While we have continued to evolve and tweak the effectiveness of governance practice, it seems we are constantly playing catch up. The issue, we argue, is that current governance is values-ambivalent and lacks foresight. Homogenous boards espouse short-termism at best and cronyism at next-to-worst. Current institutional constructs favour amoral economic thinking (Crane, 2000). Perhaps this is not surprising considering governance reformation post-Enron yields little real improvement as corporate scandals continue to plague our society with far-reaching impacts exacerbated by globalization. Absence of both values and foresight blinds us to both externalities and internal tensions, to acting in the best interests of stakeholders.

At the August 2019 Business Roundtable[1], members made a clear joint statement to definitively lead their respective companies for the benefit of all stakeholders. The global investor community is pushing for more Environmental, Social and Governance (ESG) compliance built into corporate governance guidelines (de Silva Lokuwaduge and de Silva, 2020). Both shareholders and citizens are demanding transparency in corporate reporting, including social and environmental sustainability impact disclosure (DiPiazza and Eccles, 2002).

With sustainable development now elevated to a serious responsibility in contemporary organizational governance, the notion of "*anticipatory*" governance whereby foresight practice is a core competence emerges. However, anticipatory governance as practice is discussed almost exclusively in the public administration domain (e.g., Fuerth, 2009; Engelbrecht, 2012; Jones, 2017), and is conspicuously missing in corporate governance (see Spotlight 1.0) literature.

[1] https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans

Spotlight 1.0: Anticipatory Governance

The notion of "anticipatory corporate governance" requires companies to shift from a short-term orientation to a long-term sustainable one where policies and decisions are built upon insights, vision and Strategic Foresight (Engelbrecht, 2012).

The increasing complexity of national and supra-national policies spanning industrial and geographical boundaries means that widespread, robust foresight practice adoption significantly expanding planning exercise time horizons to the ultra long-term (e.g., 10, 30, or even 50 years out) is becoming more critical if businesses want to take charge of managing and navigating to their hoped end-destinations. We argue that it is time for businesses to adopt an anticipatory governance approach that more fulsomely leverages SF as a foundational governance practice.

3.0 Rethinking Corporate Governance

To rethink corporate governance is to assume our responsibility for examining the fundamentals of business as institutions established by humans. Boards to this point have evolved of their own accord, augmented with a surge of governance training, yet it is still not enough.

Business management practice, policy-making and direction are not values-free disciplines – they have moral tendencies. Our decisions are constructed against a backdrop of assumed moral, ethical and political assumptions. Business-in-society is at the junction of prosperity and ruin, with the latter poised to prevail if we fail to bring forth endearing human values into policy and decision-making. Reconfiguring corporate governance from a win-at-all-costs, extract-as-much-value-for-shareholders mentality to a role founded on morality, underpinned by personal values, and skillfully executed by Directors (and their management agents) using foresight, futures thinking and methods is no easy task. Director responsibility adds up to corporate responsibility (CR), empowering board stewardship for sustainable futures that fulfil promises and obligations to the next generations of shareholders and stakeholders alike. Job descriptions for board members just got a whole lot longer.

Alternative futures, good or bad, are characterized by a common trait: complexity. It is not surprising then, that Director roles are becoming more complex. Understanding how societal values themselves are a driving force for change in unfolding futures requires more than the standard Director talents. Foresight to comprehend how the world may evolve through values evolution becomes more critical in striking a balance between businesses and their societal licensors, and insightful reflection to navigate the complexity of economic, social and environmental tensions.

We argue that ***Values-infused Foresight-driven*** governance is the 21st century imperative for the gold standard of corporate governance. And we argue that ***Values-driven Future-literate*** Directors are the 21st century gold standard of directorship.

3.1 Futures Literacy - The Starting Line

There are two possible starting places to instill Strategic Foresight discipline into an organization – management and the board. SF as a practice leverages novel methods to prepare scenarios; the usefulness of these scenarios is hugely dependent on the "receptivity of future-literate stakeholders" (Jones, 2017). Anticipatory governance requires boards to co-create future company visions based on a variety of data sources: informed trends, data analytics, and expert opinion consultation, along with the Directors' own experiences and insights. Given that Directors are ultimately responsible for "good governance", the best place to start is at the board level. SF that starts at the individual level with a foundational understanding of foresight and future studies is called Futures Literacy (FL) [Miller, 2007; Jones, 2017] {See Spotlight 2.0}.

Spotlight 2.0: Strategic Foresight Competence at the Board Level

> "*...Board Members...with a foresight penchant have to connect the dots in anticipating market seismic shifts.*" - Klakurka and Irwin (2016, p. 134)

The challenge today is for all Directors to elevate this competency and assume active responsibility for organizational futures.

According to Day and Schoemaker (2008), just 23% of CEOs undertake scanning for weak signals indicating embryonic events – precursors of possible futures – in the periphery, while the others tend to focus rather on operational excellence. If this is the widely practised governance approach, how can board members rely on management's input on alternative future perspectives by carefully considering probabilities, plausibility and desirability to direct strategic direction and steward assets?

With more eyes on the board as oversight to management, and accelerating Director liabilities on mismanagement, board members can no longer shirk responsibility for the future by assuming away the problem with notions like “we hire management to execute”.

For Directors, a more anticipatory and strategic approach to corporate governance not only impacts their decisions about the future of the firm, but also the “who, what, and where” of the board itself and members. Selection, competency, evaluation, committee structure, agendas, and virtually all areas of board work can benefit from SF.

Boards and their members can hone their FL and therefore long-term contribution through learning and applying SF methods (forecasting, scenarios, modeling, horizon-scanning, and Delphi panels, to name a few), learning where it’s worked in practice (e.g., Royal Dutch Shell [Wack, 1985]; DHL [Reckling and Karlshaus, 2012]), scanning the far horizon for trends, and thinking about how it all fits together.

3.2 Challenges and Pitfalls

Current SF practice – if practised at all – is rather siloed organizationally and somewhat an elitist academic endeavour relying on small groups of futurist experts limiting its full potential. Foresight efficacy therefore largely hinges on personal perspectives, institutional culture and important cross-institutional compatibility. However, effectiveness and performance in the future will increasingly be defined by organizations that can perceive the often unimaginable in the far away time-horizon. Directors are expected to guide and nurture their organizations as agent managers may simply not be able to “see” alternative futures apart from extrapolated “todays” and/or may have no time for such novel approaches in the milieu of the “day-to-day”. Hence, building FL as a foundational capability of Directors serves their long-term fiduciary duties and orients them toward becoming VDFL Directors.

Even when firms do practise SF, usage of ‘so-called’ foresight tools does not fully explore contexts to drive needed and transformative change. Forecasts, projections and predications are often misconstrued as foresight methods. While these tools are appropriate for shorter-term planning, they are developed based on various assumptions encircling business as usual. Any hint of abnormalities renders these tools irresponsive to emerging trends, uncertainties and shocks (Gudowsky and Peissl, 2016). Hence, Directors' FL allows them to ask the right questions, thereby challenging and guiding management to explore insights with much expanded perspectives.

Another major challenge to practising anticipatory governance is the integration of SF findings into policy-making and decisions that very often cut across industry and institutional divides. Leading MNEs are most equipped with advanced technological knowhow, global and local network connections, and the resources to strengthen and showcase their SF practice for robust anticipatory governance. Developing and demonstrating this competence can greatly benefit smaller organizations and non-profits through knowledge sharing of SF best practice, proof-of-efficacy and market signaling.

4.0 Values and Foresight

> *"[T]he intellectual and social legitimacy of foresight arises from the acceptance of human agency and moral responsibility, which imply an interpretative and reflexive stance with regard to knowledge."* - Fuller and Loogma (2009, p. 6)

The act of futuring is the art of seeing possibilities that are carefully chosen and built (Masini, 2006), suggesting SF practice represents ideologies reflecting the imposition and the construction of a system of values and conducts (Baptista, 2014).

According to value theorists (England, 1967; Rokeach, 1973), values are the perceptual filter through which we as humans scan, collect and interpret information – the same scanning central to SF. It is this filter that influences many board and executive decisions faced by these agents on behalf of their principal firms.

Foresight without values or values without foresight could have significant implications on decision quality for both a firm's future(s) and its eco-system. Having foresight absent values negates visions of desirable human-centric futures that may run the risk of becoming technocratic. The dystopian views often vividly portrayed in science-fiction aptly illustrate paths we can erroneously stray onto if we fail to recognize humanity's endearing futures. On the other hand, values without foresight focus firms' effort in tackling today's plight without consideration to solving bigger picture, long-term problems or may seduce leaders to pursue self-interested goals. Leaders – Directors and executives – run the risk of executing ineffective, short-sighted decisions that will not solve impending challenges despite good intentions. Either approach compromises not just firm performance, but our planet and society's sustainability. Both are a move from status quo governance and leadership, yet alone neither remediates the need to expunge an expanded, holistic view of fiduciary responsibility.

It is therefore the integration of SF processes (largely reliant on technical methods) with a values-based idealization of alternative futures that empowers human – Director and manager – agency to take ownership of responsibility in order to achieve desirable futures. Board members understand assets and liabilities. Director obligations extend to generations to come and include acquiring proficiency (FL evolving to VDFL) to proactively address challenges along the way toward preferred futures (Slaughter, 2012).

An individual's futures consciousness that shapes their foresight competence encompasses their personal values, beliefs, time horizon and worldview (Ahvenharju et al., 2018). The significance of these values impacts the construction of futures, while the values' temporal effects are more readily affected by various situational factors (e.g., going concern issues may negate otherwise discretionary spending on social concerns like food donations to the poor) [Eyal et al., 2009]. Therefore, individuals' values could be the key underlying forces that shape future organizational and societal visions, including perception of the inter-connectedness of business in society. "A limited worldview could lead to inferior strategy and ignorance of risk, and ultimately to CEO job loss and breach of fiduciary responsibility by the board" (Klakurka & Irwin, 2016, p.136). The strength, holism and time horizon of the board's vision will inevitably direct leaders' long-term organizational strategies. In this way, strategic leaders' (i.e., Directors') quality of vision propelling strategic action is contingent upon their futures orientation influenced by their value system.

Governance processes are designed to remove value judgment, as many argue that value judgements are subjective, personal and may or may not bear relevance to the business. So to avoid unpleasant conversations and unnecessary misalignment, rigid processes ensure humans cannot deviate from pre-established rules. While rigidity instills discipline and is acceptable in stable times, it is a delimiter and will fail to respond in the VUCA (volatile, uncertain, complex and ambiguous) environment of today and tomorrow – as external and internal structures never remain static, but rather rapidly morph.

To govern as stewards, Directors' values – values that are authentic and placed in the context of their firm's external/internal environment – must be incorporated into their personal SF practice, that in turn collectively informs the bigger SF practice at the level of the firm. Boards must inform and evaluate strategy and hire/fire CEOs with values-driven, futures-literate perspectives in decision-making processes.

5.0 Our Path Forward – VIFD Governance

Just like an auditor is charged with searching for both "fraud and error", going forward board members must be a final backstop for erroneous, reactive and inconsiderate decision-making. Scandals, a product of fraud, but also a by-product of a lack of holistic thinking and SF whereby consequences are not well thought through and wider stakeholder impacts are blinded, pose tremendous risks to firms. At a minimum are reputational risks, but additionally included are long-term wasted costs, morale degradation, and stakeholder mistrust. Arguably the most "foresight-evolved" company will use foresight at multiple levels of management and within the boardroom. Testing out foresight techniques by the strategy department or hiring consultants with unique expertise might be a first step. However, it is more than expanding environmental scanning or using new terminology – during the COVID crisis, university administrations quickly adopted future studies terminology and prepared literally dozens of "scenarios" overnight, hardly a foresight exercise. Foresight is driven by each board member's reflective recognition that fluency in SF is a required competency to challenge status quo thinking in board meetings. It's a further realization that SF as a discipline and FL as a competency need to ultimately become an imbedded discipline within governance structures. Only by integrating a values-infused foresight competence at the board level, can the combined trend insights, deep data, and unique approaches (e.g., Causal Layered Analysis or Scenarios) to envision future states be understood and translated to policies and execution, balancing 21st century fiduciary responsibilities. A board that embodies values-infused foresight proficiency can have an influential complementarity on typical CEO-driven strategy (particularly for those focussed on operational excellence) in driving performance, challenging take-for-granted assumptions and improving readiness for alternative futures. Only when values-infused foresight is integrated in governance, can companies pivot in current VUCA environments by tuning policies, grooming talent, and re-directing appropriate resources and investments to reflect a bridging of today and tomorrow.

The shift from current to future governance needs to be very much built upon values and foresight as the *principle of practice.* Values-infused foresight practice is the means of bringing humanity into governance and shifting business thinking from a position of amorality to being morality-oriented. Human values and the ability to expand one's peripheral vision to encapsulate a systems-thinking perspective that incorporates long-term, temporal dimensions is a new foundational competence of Directors. Like financial literacy is now a recognized must have for all Boards of Directors, the future demands all Directors have FL *and* be aware of their own value priorities and biases – i.e., VDFL. By bringing values into boardrooms, group discussions are enriched to address challenges both firms and society face.

Table 1 contrasts current governance foci to the future of governance in VUCA environments.

Table 1: Governance in Transition

Governance Category	Current focus	Future - VUCA
From	**Compliance & Risk Mitigation**	**Values-Driven Future-Oriented**
Compliance	Legal Compliance	ESG Compliance
Finance	Financial Oversight	Financial Resilience
	Audit Integrity	Audit Integrity and Corporate Transparency
Risks	Risk Management	Future-oriented Risk Management
Strategy	Competitive-oriented Static Strategic Planning	Future-oriented Directive, Purpose-driven Strategic Planning
	Strategic Corporate Social Responsibility & Philanthropy	Values-based Sustainable Development and Stewardship; Shared Value-Creation
Talent	CEO Success Planning	Values-based Executives and CEO Development
Compensation	Executive & Board Renumeration against Economic Measurements	Executive & Board Renumeration to Forward Looking Balanced Metrics
Director Competence	Functional Expertise Industry Tenureship Professional Skepticism	Functional Expertise Industry Tenureship Professional Skepticism + Values-driven Futures Literacy

Our path forward for corporate governance needs to look to the long-term horizon with a humanistic and eco-centric values approach. It shifts from governance's traditional emphasis on *risk mitigation* to *desirable futures-construction*. It shifts from *management oversight* to *corporate stewardship*. It shifts from ensuring *financial integrity* to *transparent and values-driven decision-making leading to sustainable enterprise.*

5.1 Values Segregation

Individuals carry with them their personal values and more often than not these values are parked at the door when we enter the workplace. Our work values take over as our dominant institutional values that influence how we set business objectives, address competitor issues and manage organizational performance. These values are generally achievement-oriented and focused on techno-optimization, made popular by celebrity economic theorists.

Many Directors display some evolved personal values and perspectives; however, our institutional norms discourage organizations from actively recruiting values-oriented Directors when seeking new board members. Nor are such values welcome in typical board discussions. Why else do we have corporations enthralled in corporate scandals (e.g., Wells Fargo, Volkswagen)? A Director's perspective on employee welfare is not likely to be welcomed nor solicited beyond rubber-stamping any compensation policies that tend to be 'market-driven'. Nor would a board member's passion for addressing community hunger be welcomed when influencing firm community engagement plans. Nor would a Director's concern over toxic waste be addressed in regular board meetings with full transparency about production processes, save for a simple show of compliance certification.

> *[D]irecting implies an overriding prescience, turning the accountability of board members inside-out so that they are defined more by their decisiveness rather than by their duty."*
> —John Dalla Costa, Director of Centre for Ethical Orientation

Dalla Costa (2016) poignantly points out our institutional habits to celebrate decisiveness versus duty of care, without a conscious awareness of suppression of values or ignorance for business sustainability. The duty of care has evolved from shareholder to stakeholder and that means our corporate governance approach needs some serious rethinking. By practising self-reflexivity, Directors will clearly see that the same reactive, always-in-crisis thinking mode is not what's needed to extinguish fiduciary duties in the longer-term future.

5.2 Corporations as Value Systems

According to the theory of spiral dynamics (Beck and Cowan, 1996), organizations evolve upwards to higher levels of consciousness reflecting evolving perceptions of the world from simple to complex, static to dynamic, and ego-centric to system-centric (Boiral et al., 2014). Values-infused foresight supports future governance in utilizing such higher consciousness in board-level decision-making. New core values emerge as a result (Beck and Cowan, 1996). A complex, system-centric worldview encompasses a paradoxical management frame (Hahn et al., 2014) that is about accepting and accommodating interrelated yet contradictory aspects of economic, environmental and social concerns, in addition to temporal complexity. As board members' values evolve, so does their worldview and future orientation, as does those of the firm itself by collective proxy.

Social futures are constructed projections of desirable social outcomes (Masini, 2006), not mere outcomes of personal whims or desires. However, alternative firm futures are influenced by both socially constructed projections of the societal collective and constructed projections of the firm's people and leaders. If boards fail to understand needed values orientations for their businesses in society – failing to effectively advise on strategic direction for their respective organizations – they risk falling behind, losing competitive advantage, and/or taking a follower position in their industry. In the worst-case scenario, they risk survivability and their reputation, the latter often built over decades of hard work as they become seen as a non-contributor to societal needs.

5.2.1. Let Your Values In

To truly allow values to influence foresight practice is first to acknowledge the vulnerability of humanity and the values that are universal across mankind. These are the values that allow us to survive, thrive, live in peace, become resilient, and be joyful. When these conditions are threatened by a habitual, mechanistic societal evolution, it requires leaders' conscious awareness to question how certain fundamental values are being challenged. Board members are recruited for their courageous, questioning minds, as much as experience. So, now more than ever, Directors must reflect and act to bring awareness of threats to certain values: personal, board, and firm-related. VDFL should be a goal to instil in managers and employees. While SF processes can be inclusive, board members should set expectations of the CEO and the senior team for inclusive and open environments where values can be disclosed to enrich firm culture: accepting challenges and divergence from one's own values willingly, in case others' values better align with future states the organization may face down the road.

Individual Directors must stay true to humanistic values, trust the outcomes of their VDFL discernment, and wield power to influence the redefinition of the structure and rules for governing. Failing to do so means losing some endearing values as a by-product of a static mechanism that seeks only to perpetuate goal maximization reflecting temporary, static contexts.

Individual values and the collective values of the firm need to be articulated, shared and discussed without agenda in the boardroom. Diversity encompasses diversity of values and ideas, underscoring the importance of sharing, understanding and aligning a diverse set of values toward a common understanding of desirable futures. A combination of values induces conversations and narratives around often technical, data-driven future assessments and points a way forward to practising values-infused strategic foresight in boardrooms and management suites. In other words, amoral thinking is no longer acceptable. Values should be embraced, differences understood and reconciled. Insights and decisions cannot be solely based on technoeconomic-optimization.

6.0 Values-infused Foresight-driven Governance (VIFD) – A Practical Guide

It's now time for governance to challenge the status quo and complacency of an incremental improvement mindset. A good foresight program requires an organizational culture that seeks to drive change (Calof et al., 2012). This may be difficult for many boards stuck in evolutionary stasis. Moreover, Calof et al. (2012) further go on to note that good design, skills and methodologies are insufficient to assure foresight impact. It is therefore expected too that boards looking for a "one-stop shop" approach to foresight – be it a new line item on the Director recruiting competency map or adoption of any particular foresight approach – will not necessarily produce foresight-driven good governance. Additional factors like organizational culture, stakeholder buy-in, and effective communications are also important. Building on Calof et al.'s (2012) notion, values awareness, comprehension, and personal (Director) conviction are foundational to building a consensus, resulting in culture enhancement (Chow, 2018). Foresight therefore cannot be divorced from values.

6.1 Mindset of a Values-driven, Futures-literate Board Member

For leaders, the complexity and difficulty of their necessary change in mindset and behaviour is summarized by Rasmussen, Andersen and Borch (2010): “trans-disciplinary future thinking is challenging for many actors” (p. 45). Unlike employees who can remain functional experts or outright disengaged citizens, Board members serve performance both in its traditional and beyond-profit sense, and are increasingly expected to consider the interests of broader stakeholders. Since organizations must respond to new realities to remain competitive and sustainable, the ability to identify future trends and anticipate market and (social) changes is a determinant to sustainability and competitiveness. A growing disconnect seems to exist between leaders’ (Directors’ and executives’) comprehension of contexts and the one demanded for success – trends, technologies, business models and complexity are growing faster than leaders’ ability to keep up. As the future redefines what governance means (see Table 2), Directors must evolve to meet these new challenges.

Board members must balance today’s mindset with what’s needed in the future simultaneously. As Directors explore alternative futures through applied foresight in their organizations, they should ask if any – or more likely to what extent – envisioned futures rely on outdated approaches. They should consider what “don’t mess withs” have not been “messed with” for way too long and now impede an accurate view and roadmap to the aspirational future.

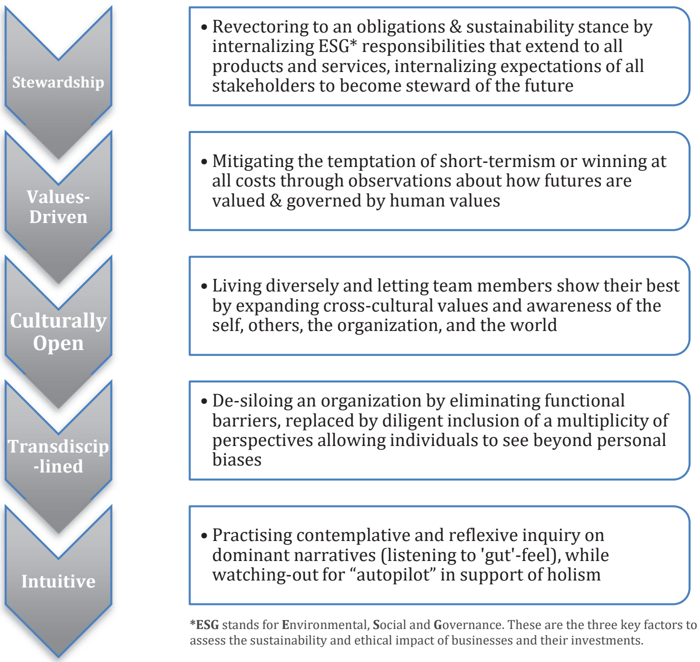
Table 2 lists key behavioural principles to infuse values and foresight in your practice as a Director.

Table 2: Behavioural principles to infuse values and foresight into governance practice.

- Avoid parroting others' "views of the future" as this is analogous to giving away your independence as a Director
- Ensure goals and performance metrics represent win$^{\wedge n}$ solutions to avoid perpetuating an outdated shareholder-first mentality
- Don't let today's context necessarily change your researched, foresight-exercise-derived anticipated futures
- Don't be star struck with competitor's business models, innovate your own way
- Have the courage to call out and poke all "pink elephants" in the room while staying courteous and professional
- Consider new ways to engage, new definitions, and new project execution approaches
- Get an external board assessment undertaken by an independent group
- Tell management you expect a foresight study/exercise and guide the process
- Welcome the sharing economy as an impetus to business model innovation along all parts of the value chain
- Vet assumptions and if they are outrageous, call them out as being so; simply do not vote to approve forecasts/projections that you know are dead wrong
- Don't assume you can just nudge stakeholders with inauthentic communications, expecting acquiescence; rather expect enhanced push-back on values-deprived decisions
- Start measuring signposts (outputs of organizational foresight exercises) like you would other key metrics
- Remember: If it is incremental, it is not strategy, so it's also therefore not SF
- "[A]ny useful idea about the futures should appear to be ridiculous" (Dator, 2002). Listen to Jim Dator's words before ignoring some hard-to-comprehend, "far out" versions of the future
- Ensure the organization is oriented toward their aspirational and purpose-aligned future at each meeting
- Apply improvisational bricolage (Cunha et al., 2009) to make what you can from that lump of contextual clay

There are five main building blocks to developing ***Values-driven Futures literacy (VDFL)***:

Figure 1: The Five *Values-driven Futures literacy (VDFL)* Building Blocks



As Miller (2007) states "FL is the capacity to explore the potential of the present to give rise to the future. Like language literacy, FL is a variable or cumulative capacity that can be used for many purposes" (p. 347). Board members certainly must demonstrate a personal and collective capacity to "think about the potential of the present to give rise to the future" (p. 347). As communicators in the boardroom, they similarly need to be skilled at "developing and interpreting stories about possible, probable and desirable futures" (p. 347) to intervene in long-term strategy development, assess risks on the horizon, ensure leadership continuity, and excel when reviewing important policy decisions.

Miller's (2007) three-stage model for FL capacity building can be applied at the board level to specifically illustrate how values can be incorporated into foresight-driven governance practice. Across each stage, applying the

FL "levels" allows Directors to know what to focus upon, as indicated in Table 3:

Table 3: A 3-Stage Model for Values-infused Foresight-driven Governance Practice

FL Level	Goal(s)	Implication(s)	Applying SF at Board Level (direct actions of Board or Board-auditable actions of management)
L1: Awareness	• Values-inclusivity in conversations	• Board receptivity to incorporate values in boardroom discussion	• Expand decision-criteria and board dialogues beyond techno-optimization
L2: Discovery	• Possible future(s) and the path(s) reimagined	• Board members to challenge management to build creative views of the future into plans • Board has tools to hold management accountable for plans / ongoing monitoring	• Habitualize *Build Imagined Possible Futures* as part of every strategic planning exercise • Utilize creative exercises in imagined futures • Conduct systems mapping to support possible futures • Build intuition and social science views into foresight models to "render values and expectations" • Ensure foresight trumps forecasts
L3: Choice	• Values-centricity imbedded into future decision-making processes • Expanded set of measurements / metrics that assess key drivers toward imaginings including values-type assessments	• Values alignment with possible futures is possible • Direct linkage of scenarios and strategic plans at the level of assumptions that are values and futures inclusive	• Conduct / review a "Present-state readiness assessment" for the future. Identify any value gaps • Understand what elements of plans today "lock in" the thinking and / or limit values-centred decision-making flexibility in the future • Articulate the "roads not being travelled" in articulated plans

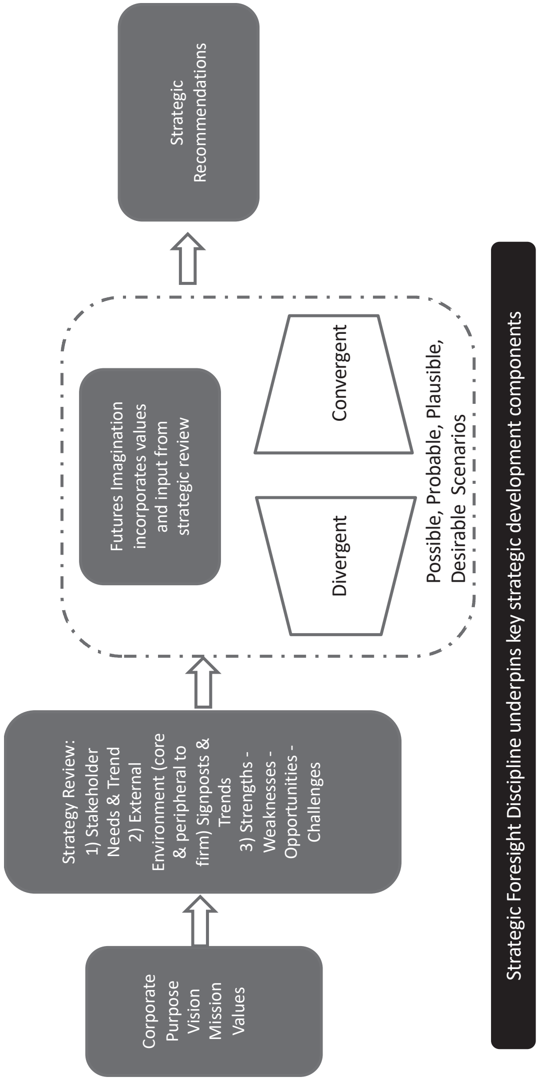
Having built the foundation for FL at the Director level, next it must be built into a dynamic governance process.

6.2 A Values-infused Foresight-driven (VIFD) Governance Construct

A values-infused foresight process requires the board to start with a common perception of the firm with regard to its purpose, vision, mission and values. Figure 2 illustrates the process of a values-infused strategy development process as part of a board's governance mandate. As the firm embarks on its strategic review, managers use different SF analytical methods and tools to assess trends and stakeholder needs over time horizons extending from and beyond traditional strategic assessment approaches. A key difference for the board from traditional strategy processes is engagement in a futures imagination session. Therein, board members bring in their value principles alongside the organization's collective values and leverage foresight analytical outcomes to develop and/or refine different alternative future scenarios. "Each varies materially to reflect stark differences in predilections for future states, but not so wildly as to ignore momentum, nostalgia, or be otherwise plagued by extremes that render them less useful for informing….planning and building consensus-change" (Klakurka & Irwin, 2020, p.9). Like any strategy, implications are drawn. For foresight though, probability, plausibility and possibility is assessed, including desirability. This charting of a path to the most preferential outcome has results ranging from mindset alignment to measurable signposts.

A main benefit of this approach in the VUCA environment is insight for cross-sector collaboration to reach the desirable plausible future. This desire and conviction to reach a preferred future state sets apart those rare companies who are leaders, thinkers and forces for good, from those who constantly react, follow don't lead, and self-serve over just serve.

Figure 2: A values-infused foresight-driven strategy development process



7.0 Conclusions

> *"Board leadership is about corporate renewal: inventing tomorrow's company today."* (Chow, Lichtenstein & Klakurka, 2020, p. 20)

In the past, thinking about the future was much less of a priority as the world changed slowly. However, rapid change in the 21st century has opened and continues to open extraordinary opportunities for companies who have a future-orientated attitude and know how to explore the possibilities of the future.

Strategic decisions approved by boards can be viewed as a series of choices. The more knowledge there is about the forces shaping the future, the better alternative contexts can be envisioned and described. Context for the future is about human values. Governance in the future will be predicated on delivering on shareholder and stakeholder expectations – corporate responsibility – fully and fairly. Evolved VDFL by board members can contribute to better advice to management about choices, can ensure that boards are a stop-gap if management fails to see the future, and can position firms to play an active role in more equitable societies. SF involves broad context setting, engaging stakeholders and experts, and ample creativity. Having foresight without values misses a critical aspect of context and leads to nowhere. It is values that guide the idealization of our futures whereby foresight competence enables the path forward. Hence SF must be values-driven. Governance similarly devoid of human values and futures thinking is destined to deviate from duties. Figure 3 illustrates the construct of good governance that builds upon a values-infused foresight practice at both the individual and organizational level.

Figure 3: A Values-Infused Foresight-Driven Governance Model

Values-infused Foresight-driven Governance motivates strategy development and management practice beyond satisfying stakeholder needs; but exceeding expectations through embodiment of morality and human values, supported by a robust and evolving strategic foresight practice.

1. Directors' values and futures-literacy underpins the future practice of good governance at the board level
2. Corporate values and SF competence provide the needed corporate climate to effect good governance
3. The future of good governance embodies values-infused foresight practice

Boards of directors play a vital role in taking an anticipatory approach to corporate governance as they provide an objective, creative and informed contribution to initiate, develop and sustain good governance practices in order to ensure a profitable and sustainable future for their companies. A ***Values-driven Futures-literate (VDFL)*** board comprised of a set of diverse, humanistic values brought by each Director to the boardroom table will no doubt enrich discussion of alternative futures that more widely consider the greater good of the society. Ultimately, it is human values embodied by all of us and exemplified by leaders that will have the most impact on shaping positive futures. Values-infused foresight as an organizational practice starts with the upper echelons of the board, embeds in the organizational governance structure, and then cascades into everyday management.

The global environmental and humanity challenges we face today put into perspective the critical role of values-infused futures and foresight practice needed to enact transformation toward desirable futures. As Slaughter (2012) highlights, the "form of futures practice par excellence should depend less on intellectual rigour than it does on spiritual insight, humility and commitment to the service of humanity" (Slaughter, 2012 p. 420). Good organizational governance – ***Values-infused Foresight-driven (VIFD)*** governance – anchored to human values and enacted by agents with the aptitude, interest in evolving future contexts, and the resolve to progress toward the unknown, will help secure aspirational futures for all.

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EXPLORING MEANINGFUL FUTURES TOGETHER – AN INTEGRATIVE APPROACH TO FUTURES AND VALUES-ORIENTATION IN THEORY AND PRACTICE

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Abstract

Humans search for meaning, strive for realization of values, and aim for a purpose greater than themselves (Frankl 1959, 1969, 1985). Values orient and affect personal lives and communities, they are integral to our work and leadership processes (Pattakos 2010; Mengel and Boccuzzi 2018; Mengel, Tantawy, and McNally 2018). In particular, values inform the concept of "values-oriented leadership" and become important building blocks of collective wisdom and of wise leadership (Mengel 2021c).

What we value affects how we think about the future as individuals and as communities (King and West 2017; Wheelwright 2011). The increasing interest and scholarship in futures studies have resulted in various approaches to exploring and co-creating our personal and communal futures in theory and practice (Voros 2003; Glenn 2018).

In this chapter I demonstrate how combining the scholarship about our human search for meaning and happiness with approaches of foresight and futures orientation result in an integrated and practical framework for exploring meaningful futures together. Building on an earlier presentation and discussion (Mengel 2019b), I propose a first draft of that framework for discussion and as basis for a dialogue about the wholistic construction of social futures.

Keywords

Values; meaning; social futures; foresight; leadership.

1.0 Introduction and overview

Our future is at risk. In particular, climate change and exponential developments in various areas of the sciences and of technology – e.g., genetics, neuroscience, artificial intelligence, cybersecurity, transportation, alternative energies, etc. – provide opportunities and challenges abound. Given the planetary relations (Motti 2019) among humans, communities, and organizations both from social (relationships) and technological (connections and connectedness) perspectives, our risky futures should be explored and assessed in the context of these relations and in a cooperative way. Futures that are supposed to be meaningful to all stakeholders can only be explored together; in other words, only together will we be able to create "The Future We Want" (United Nations 2020).

Exploring meaningful futures together requires frameworks that are accessible and acceptable to all stakeholders and that promise to be effective in terms of achieving a common understanding of what is at stake, of what opportunities might exist, and of ways to effectively move forward. In the following, I propose that combining the concepts of values, meaning, and values-oriented leadership on the one side and of foresight, futures, and futures-oriented leadership on the other may result in an integrated and practical framework for exploring meaningful futures together. Bringing together two areas of my research (Mengel 2021a, 2021c), I present a first draft of that framework for discussion and as basis for a dialogue about the wholistic construction of social futures.

2.0 Applying values- and futures-oriented leadership: Sarkar and Our Futures Games, Systems Approach, Futures Scenarios and the Futures Wheel

Applications of futures studies and foresight methodologies have proven to "capture value through an enhanced capacity to perceive change, an enhanced capacity to interpret and respond to change, influencing other actors, and through an enhanced capacity for organizational learning" (Rohrbeck and Schwarz 2013, 1593). In particular, the Sarkar and Our Futures Games, the systems approach, futures scenarios and the futures wheel can be of value in guiding the application of futures and values-oriented models of leadership (Mengel 2021a, 2021c; Motti 2019; Wheelwright 2010; Glenn 2009; NESTA 2020a, 2020b).

2.1 Games: The Sarkar Game and Our Futures Game

The Sarkar Game is an engaging two-hour simulation foresight role playing game that I have used several times in the context of leadership education for social innovation (Mengel 2020). The game helps uncover assumptions about values, roles, and power dynamics that usually operate in the background, mostly unconscious to the people involved. It is particularly helpful for more deeply understanding the challenges and opportunities of social change and uncovers important elements to consider in other steps of designing and implementing futures-oriented leadership.

The Game is based on Sarkar's (1982) theory of social change whereby power and change are cyclically dominated first by workers, then warriors, followed by intellectuals, and finally capitalists. The game shows how easily those roles – assigned to four groups by the facilitator – get adopted even on an emotional level thus demonstrating values on an individual or group level that might not have surfaced otherwise and that may be opposed to values that individuals (or groups) identify as important to them.

Addressing these observations and experiences in the debrief of the game can lead to a humbler approach to social change and transformational leadership characterized by a heightened awareness towards often hidden individual and group dynamics that obstruct effective leadership for change. This awareness can effectively accelerate the cycle of change or even remove exploitation that often comes with certain positions (roles) of power. Participants deeply learn about the social construction of societal and organizational realities; as a result, they are better prepared to engage in effective leadership toward the future.

Our Futures is a game that helps imagine "new ways to involve people in thinking about the future" (Nesta 2020a):

> *Players (individuals or teams) compete to devise scenarios for new types of participatory futures activities that combine emerging technologies and a focus on tackling 21st century challenges, such as biodiversity loss or extreme weather events. The player or team with the most votes for their participatory futures activity wins the game. (Ibid.)*

The material necessary to play the game and to imagine all kinds of participatory futures – instructions, the game board, and cards – are freely accessible for download, printout, and use. Every game is started by selecting (or randomly drawing) cards that need to be incorporated or addressed: technologies (for example, face recognition, artificial intelligence, internet of things, gene editing, etc.), challenges (for example, food and water insecurity, extreme weather events, democracy disillusionment, post-growth economy, etc.), partners (for example, indigenous communities, international space station crew, youth leaders, artists collective, etc.), and design variables (for example, Implicit image of the future, community impact, online engagement, interactive participation, etc.). Then one of five engagement approaches can be randomly selected: Create, Immerse, Sense, Deliberate, and Play. Additional elements, roleplay, and voting can be added as advanced features of the game.

One or several teams work on creating detailed scenarios within their respective limitations and opportunities as described by their selected, assigned, or randomly drawn cards. Depending on potential additional elements of any given game, the resulting scenarios can be role-played, put for vote in competition against each other, or combined to describe various potential futures in any given context.

The instruction booklet (https://media.nesta.org.uk/documents/Our-Futures-Instructions-PAH.pdf) provides an example of a fascinating vision for the future resulting from a combination of three game elements: biodiversity loss (challenge), AI (technology), and deliberation (approach). The resulting vision is described as follows:

> *"I hereby call this meeting of the Interspecies Council of the Future (ICF) to order," said the Arctic fox. It is summer 2030, and thousands of species are threatened by the ongoing and impending impacts of global climate change. [...] Through the ICF, species are represented by a specific artificial intelligence (AI) that aggregates and analyzes historical and real-time data forging a perspective shaped by a combination of cognitive biology and computational narration. [...] ICF members, from spotted owls to narwhals and tiger beetles to polar bears, participate fully in a variety of in-person (via holographic projection) and online engagements with people all over the world. Together they deliberate on the most pressing environmental questions of our age, from de-extinction initiatives to geoengineering. The ICF supports international decision-making by creating a platform for interspecies dialogue.* (Ibid.)

In my own work, I have adapted the game to be played online in a newly developed course on "Leadership and Foresight". Situated early in the course, this game playfully engages students in developing an image of a participatory future, which can then be further discussed and more systematically explored with the approaches and techniques described in the following section.

2.2 Systems Thinking and Scenario Technique

Another foresight approach that helps look at potential changes and effects in a holistic way is the systems thinking approach. Motti (2019) has most recently described its potential application in the context of foresight and futures thinking; he shows a conceptual systems dynamic map about the green economy and clean energy (49-51), where key variables and their (mutually either reinforcing or balancing) effect result in systemic feedback loops that help understand how changing certain variables propagates through the system in certain ways. For example, in the context of "green economy & clean energy", one of the "negative ... consequences" may be an "industrial employment crisis", which may lead to "government intervention to support status quo" and in turn negatively affect the "green economy & clean energy". This is just one of the simpler feedback loops as depicted in this particular system dynamic. These loops and their visual representation are hugely helpful in anticipating both wanted and unwanted effects of certain measures in a systemic and holistic approach. They also can effectively serve as input into the identification and analysis of various scenarios for the future with the help of another dedicated technique.

Most widely known is Shell's intensive application of a scenario technique (Shell 2008; Meinert 2014) focusing on a six-step process:

1. Decide drivers for change/assumptions
2. Bring drivers together into a viable framework
3. Produce 7–9 initial mini-scenarios
4. Reduce to 2–3 scenarios
5. Draft the scenarios
6. Identify the issues arising.

More recently, Motti (2019) has described in detail how he applied the futures scenario technique in a slightly different approach in a workshop at an international conference in Milan: "Reconciling Babel: Education for Cosmopolitanism" (Fondazione Intercultura 2019). After his presentation about relevant scientific discoveries and technological developments, participants were invited to engage in "disciplined imagination" about alternative futures of the "planetary era" in 2040 (Motti prefers the use of the term planetary era in lieu of era of globalization to avoid the reference to the neo-liberal focus on trade and economic dynamics).

As a result, three determining uncertainties were identified that would interact in affecting different scenarios as follows: a) international travel (booming vs shortage), b) access to energy (freely available vs highly restricted), and c) language barriers (low barriers vs high barriers); combining all potential high and low values for each of the uncertainties results in a matrix of eight possible scenarios. In this particular case the two scenarios based on booming international travel and at the same time on highly restricted access to energy, while possible in principle, were ruled out as highly unlikely because of the almost contradictory criteria. The remaining scenarios where then described by participants in more detail based on imagining what a planetary future featuring the respective combination of factors and assumed values would look like. For example, a world where energy is abundantly available, where travel is booming, and where there are no language barriers can be imagined as a space where "placeless brains prevail" (Motti 2019, p. 33), where every possible utopian concept has been developed to and implemented at a level of positive interplay were doing good together at a planetary level is the norm. On the other hand, at the opposite end of the spectrum we could imagine "a return to prehistoric times" (ibid. 35) where "tribal towers tremble" and where many if not all subsystems are damaged to the point of immediate collapse of the whole.

While these and the other four scenarios are more or less plausible, they can be enhanced by wild card scenarios that would be radical both in nature and in their effect (high impact), but that are of low probability. For example, a world in which nation-states have disappeared, where religions no longer exist, or where computers are fully embedded in our bodies are possible in principle, radical in their effect, and at this point of rather low probability. However, keeping these on the radar helps anticipate future surprises.

All of these scenarios can then be used to identify, discuss, and further describe issues that could or need to be addressed in strategy development and leadership processes. Also, for each of those scenarios weak signs can be identified that may help detect future developments in direction of the one or other scenario and that can sometimes be influenced to become strong indicators if so wanted or counter steered if unwanted. During these follow-up steps visions for and images of preferred, meaningful, and valuable futures for the organization or community can be identified and translated into long-term actionable plans that may help make these futures more likely to actually be brought about.

2.3 From the Futures Cone to the Futures Beam

A graphical representation of the different classes of scenarios can be helpful to differentiate and further process the scenarios in the previously described sessions. Futures Cones have been used to "portray alternate futures" since 1994, based on taxonomies of futures dating back as far as 1978 (Voros 2017a, 2017b).

To better represent the fact that what the Futures Cone actually portrays are projections of what we look at in the future from today's perspective and are affected by when and how we position the cone at the point of projection, I have adapted the image to represent a beam of light originating from a strong flashlight or searchlight pointed from today towards the future. Thus, the resulting Futures Beam, when switched on, highlights what we imagine seeing as possible futures and that we can further differentiate and identify as probable, plausible, preposterous, and preferable futures, including various scenarios that we imagine shaping up in the realm of plausible futures or – resulting from the influence of wild cards – in the realm of preposterous futures (Figure 1).

While a cone as geometrical figure may be (mis-) interpreted as a "real object" containing other "real objects", a beam of light is intuitively understood as something that is dependent on a source of light and that may highlight different "objects" depending on what direction the beam is directed at and on how strong or pointed the beam of light is. Further, it is understood that for most sources of light the beam will become weaker the further away the light travels and that towards the edges of the beam it will be fuzzier.

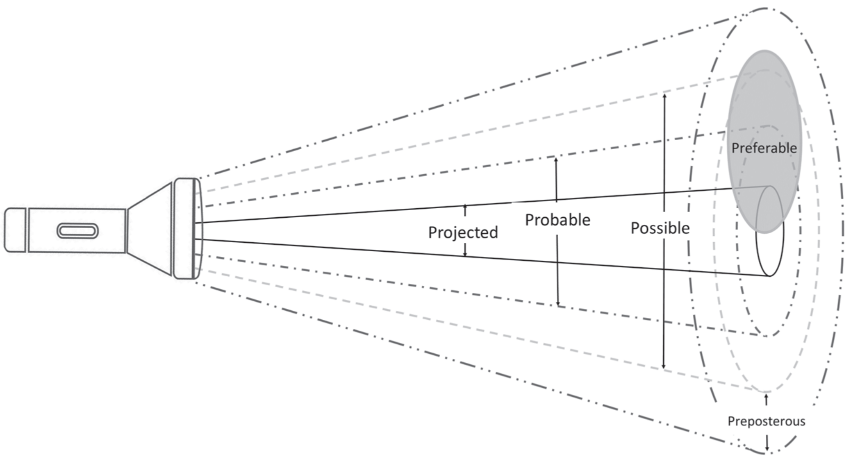
In any case, both the Futures Cone and the Futures Beam highlight the following categories of scenarios (Voros 2017a, 2017b):

- Possible (containing the following categories):
    - Probable: Future scenarios that are mainly derived from current projections and trends (e.g., assuming that current trends continue, grow or decline)
    - Plausible: Future scenarios derived from imagining the different effects plausible future events may have on current projections and trends, based on our current understanding of "how the world works" (e.g., imagining the effects future opportunities or challenges – resulting from natural, technological, human, or alien causes – may have on existing trends and projections)

- Preposterous: Future scenarios derived from imagining the effect of events or turns of projections or trends that currently are not probable or plausible, and as such don't even seem possible (e.g., the complete elimination of violence, wars, or religious beliefs or institutions)
- Preferable: A set of future scenarios that are imagined by individuals or socially constructed by communities, organizations, or societies and that may contain any combination of possible or preposterous scenarios.

Voros (2017b) also introduces Potential Futures as additional category reminding us that "everything beyond the present moment" does indeed have some "potential", given that the future is not fixed or predictable and that there is indeed a seemingly unlimited number of potential futures. Using the model of the Futures Beam, individuals and teams can jointly explore different (categories of) scenarios, engage in a discourse about values and preferable futures, and identify visions and strategies that may help make preferable futures more (and unwanted futures less) likely.

Figure 1: The Futures Beam (inspired by and expanded from Voros 2017a, 2017b)



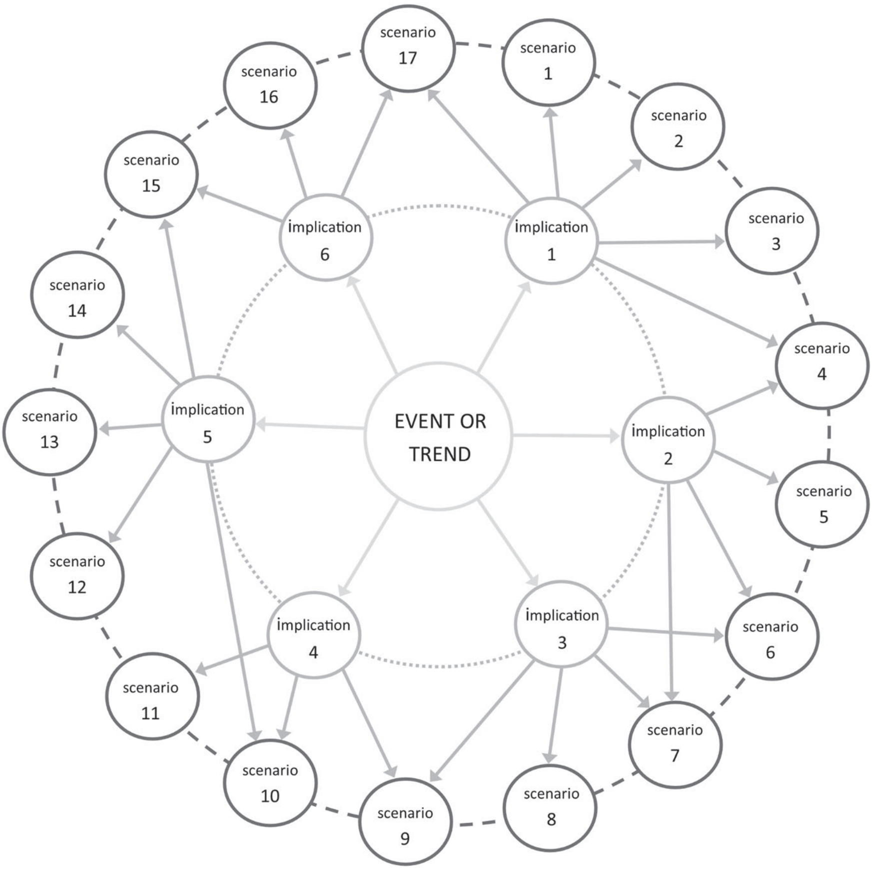
In addition, projecting more than one beam of light from different standpoints into the direction of potential futures may help explore different perspectives and triangulate the results. Organizations or communities thus can, as recently demonstrated by the United Nations on a global level, identify "The Future We Want, the United Nations We Need" (United Nations 2020):

> *Since January 2020, over one million respondents from all UN Member States and Observer States have thus far taken part in the consultations, including through representative polling of 50,000 people in 50 countries.... When looking to the future, ... [m]ost participants across all regions are worried about the future impact of climate change. Our inability to stem the climate crisis and the destruction of the natural environment is viewed by respondents as the most overwhelming medium-and long-term concern.... Other major priorities for the future include ensuring greater respect for human rights, settling conflicts, tackling poverty and reducing corruption. (ibid. 6f.)*

2.4 The Futures Wheel

The Futures Wheel (Glenn 2009) is another futures-studies and foresight technique that is helpful for exploring or even evaluating future scenarios (Figure 2). Similar to creating a mind map, in the Futures Wheel a future event or trend that is chosen for further exploration is positioned in the centre. Events or consequences that immediately follow from the central term are placed around it connected with the central term by lines or arrows (leading from the centre to the next level). In most applications another level of consequences of the consequences (indirect consequences of the central term) – or complete scenarios imagined as a result of the implications (Figure 2) – are positioned on the outer level and again connected with the previous level through lines or arrows. Some scenarios may be informed by several different implications as indicated in Figure 2 (e.g., scenario 17 is informed by implications 1 and 6). If all consequences (or scenarios) on the same level are connected through lines also, the graphical representation of the event and its consequences resembles a wheel: The Futures Wheel.

Figure 2: The Futures Wheel (inspired by and expanded from Glenn 2009)



In particular, this technique can be combined with the Futures Beam technique introduced above. In a first step, the event or trend that needs to be explored is put at the centre of the wheel. Next, participants identify potential implications for each of six different categories: politics, economics, technology, ecology, culture, and health. These implications can then further be explored in different scenarios that are created using probable, plausible, possible, preposterous, and preferred combinations of the implications identified (the brainstorming of wildcards for each of the categories will help consider possibilities in the preposterous realm of the Futures Beam).

2.5 (Science) Fiction: creating narratives for potential futures

As discussed in an earlier chapter (Mengel 2021a), (science) fiction is one effective way of imagining potential futures. Increasingly this technique is intentionally applied by organizations, companies, and governments to explore future scenarios and to identify strategies that may help achieve preferred or avoid unwanted future scenarios or events (Shell 2008, Meinert 2014, Lombardo 2018, Zaidi 2019, Spitz & Zuin 2020). While this trend warrants critical analysis as recently discussed again by Zuin (2020), it is based on the experience that (science) fiction is indeed a valid and creative tool of exploring potential futures and of creating narratives that effectively help communities and organizations move forward in the same direction.

While Kim Stanley Robinson's *Mars Trilogy* (1992, 1993, 1996) has been discussed and analyzed earlier (Mengel 2021a), the author has recently published his latest novel *The Ministry for the Future* (Robinson 2020b). Robins has set this novel in the near future (often looking backwards from the mid-21st century) and attends to historical and social accuracy in imagining the effects of climate change and in following the institution of the Ministry for the Future. This fictional body, headquartered in Zurich, was established under the Paris agreement to represent the rights of future generations in current political processes and decisions. Rather than writing about a utopia or dystopia set in the far future, Robinson intended to imagine how to bridge the time between the current climate crisis and some mitigation of the effects of climate change in the future in a "shift from capitalism to a post-capitalism that is more sustainable and more socialist" (O'Keefe 2020). Rather than "thinking up these ideas... [Robinson is] ...listening to the world and grasping – sometimes at straws, sometimes just grasping at new ideas and seeing what everybody is seeing" (ibid.). By building on examples like the cooperative economy in Mondragon in the Basque region or eco-tourism and other initiatives in Kerala, India, Robinson creates "real-world models for the future" (ibid.).

In my own creative fiction essay, *It's all a game – Ready to play on the campus of the future?* (Mengel 2021b), I use gaming and virtual reality settings to imagine what the university campus of the future (2040) might look like and how we might get there from the time or writing (2020). In my flash fiction story *Broken Records* (Mengel 2019b) I imagine how future humanoid visitors of a deserted earth might uncover records of the past that indicate how humanity may have made planet earth uninhabitable through a culture of "fake news" and lack of accountability and, as a result, had to find a new home elsewhere.

(Science) fiction reading and writing examples also play a major role in my new course on Leadership and Foresight. Students are encouraged to use their own and others' imagination to jointly imagine meaningful futures together.

3.0 Integrated Model of Exploring Meaningful Futures together

Building on the previously discussed approaches to Values, Meaning, and Values-Oriented Leadership and on Foresight, Futures, and Futures-oriented leadership, an Integrated Model of Exploring Meaningful Futures Together can be created as follows:

1. The well-researched concepts of values and meaning and their application in values-oriented leadership are at the foundation of the model; the validity of these concepts and their application is substantiated by results of happiness research and the development of wise leadership concepts.
2. In addition, approaches towards values-oriented leadership need to be integrated and combined with futures-oriented approaches, foresight methodologies and concepts of futures-oriented leadership.
3. In particular, the following steps help apply these concepts in practice (on both individual and community or organizational levels):
    a. Identify your (community's or organization's) creative values (including positive tasks, sustainability and meaningful accomplishments)
    b. Identify your (community's or organization's) experiential values (including positive relations and well-being)
    c. Identify your (community's or organization's) attitudinal values (including gratefulness and collective wisdom development)
    d. Create a comprehensive set of value descriptions from all three dimensions and include criteria that help identify, measure, and monitor the realization of these values and that can serve as input into group sessions experiencing the Sarkar and/or Our Futures games, identifying feedback loops between key variables, conducting a scenario analysis, and developing respective leadership strategies
    e. In particular, identify and create narratives of relevant potential future scenarios, be they probable, preferred, and potential wildcard scenarios (preposterous)

f. For each of those values and considering the insights from the various group sessions and techniques, develop a participative and dynamic leadership approach oriented towards realizing these values
g. Create a comprehensive yet fluid leadership strategy consistent and aligned
   i. with the previous steps (including implementation, monitoring, reviewing, anticipating changes, and adaptation) and
   ii. with the model of Post-Contemporary Leadership as presented earlier

4.0 Recommendations for future research and application in constructing community futures

While several key elements have already been tested alone or in some combination in various contexts, a comprehensive application of the integrated model in practice and in various educational settings is still outstanding. Further, accompanying research of the application of this model and evaluating both the process and its results are urgently needed. However, even as is, the model is ready to be applied in community or organizational case studies and to be adapted and improved to the community's or organization's needs. The presented models, techniques, and steps will allow facilitators of community or organizational development, educators, and futurists to help construct social futures together and arrive at "The Future We Want; The ... [Future] We Need" (United Nations 2020).

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