Leadership and Leadership Development in the Context of the Future of Work

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Candidate Declaration

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Abstract

Ignoring how the accelerating rate and magnitude of change reframes the future of work (FoW) may contribute to leadership and leadership development (LD) that equips leaders to operate in a context that no longer exists. This myopic approach fails to deliver the impacts for organisations to thrive in the FoW. Drawing on Day, Harrison and Halpin's (2009), DeRue and Myers' (2014), and Veldsman's (2016) theorizing and models of leadership and LD, the current research addresses the gap by developing and testing a model of leadership and a contextually nuanced, processual LD model fit for the FoW through three subsequent studies. First, a scoping review of 65 leadership and LD articles published in the last two decades (2000-2020) suggest that the current leadership and LD approaches are context-detached and predominantly fixated with leader competencies and individual leaders but little evaluation and impact. Second, semi-structured interviews with twenty-two LD thought leaders and practitioners and findings from the scoping review form the basis for the development of an updated model of leadership and a contextually nuanced, processual LD model comprising six context-embedded dimensions (environmental context, developmental, relational context, processual, temporal, technological). Next, a case study outlines how the models are applied in a real-life senior LD program delivered virtually over two years (2020-2021) at a global professional service firm. The design and delivery of the program is tailored to the organisational and industry context that experienced significant disruption before, and becoming worse during, the pandemic. Impacts of the program and lessons learnt are based on six interviews with Program Coaches and IXT members, 63 participant questionnaires, and sales results of nominated clients. By highlighting the context of the FoW, the current research extends the understanding of future-focused leadership and contextually nuanced, processual LD fit for the future of work. More practically, the models developed in this study can be employed as comprehensive roadmaps and applied to specific contexts within the

organisation to assess current gaps, measure leadership effectiveness, and inform leadership

assessment, development, and selection in the organisation.

Acknowledgements

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Title	Aim	Book/ Journal	Authors	Publication Status
Leadership 4.0	This Chapter aims to describes the evolution of organisations and work and how that affects the effectiveness of the leadership approaches at the time. It concludes with the proposal that Leadership 4.0 is integrative, complex, and multi-layered.	Maturing Leadership: How Adult Development Impacts Leadership, 7–35 Copyright © 2020 by Emerald Publishing Limited doi:10.1108/978 -1-78973-401- 020201003	Marianne Roux Edited by Jonathan Reams	Published
Leadership development in the context of the future of work	By highlighting the context of the future of work, our article extends the current understanding of evidence-based, context-fit leadership development as well as contributes to the practice of leadership assessment,	Journal of Management Inquiry SAGE JOURNALS	Marianne Roux Sen Sendjaya Jonathan Reams	Submitted

Title	Aim	Book/ Journal	Authors	Publication Status
	development, and selection in the organisation.			
Lessons from a complex Senior Leader Development program	In this article, the lessons of a program that had to adapt and evolve during a two-year period is shared in this article with future-fit frameworks for those who want to create more impactful programs and learning in the context of an uncertain, complex and virtual/hybrid environment.	Business Horizons ELSEVIER	Marianne Roux Sen Sendjaya Jonathan Reams	Submitted

Glossary

Future of Work (FoW) – The Future of Work describes a world where what work is, where we work and who we work with have all changed. Technological, social, political and economic factors each have significant impact on how leaders lead. It is a world of work that is self-organising, self-managed, empowered, emergent, democratic, participative, people-centred, swarming and peer-to-peer (Balliester and Elsheiki, 2018; Malone, 2004; Santana and Cobo, 2020).

Context – Context is the milieu, circumstances, conditions, or environment— physical, social, or economic—in which leadership arises and is observed (Liden and Antonakis, 2009). It is the "the overall demands, constraints, and choices for leaders" (Osborn, Hunt and Jauch, 2002, p. 802).

Leadership and Leadership development (LD) – Leadership is the process and practice of leaders, leadership development (LD) is concerned with the theory, methods and pedagogy used in developing leader processes and practices (Salicru, 2020)

Leadership and Leadership Development in the Context of the Future of Work

1.1 Overview

The current PhD thesis follows the format of PhD by Publication where three independent papers form the core chapters of the thesis reporting discrete, sequential stages of data collection and analyses. In this chapter, a general introduction for the overall PhD study is provided as follows. First, the study justification is discussed to provide context for the thesis topic and highlight its significance, particularly in terms of the need for further investigation into the identified research gaps. Next, the purpose of the study and research questions are outlined to set the overall direction of the study, followed by an overview of the literature in relation to the research questions. Then a brief outline of the research methodologies employed in the three papers is presented. Finally, a summary of the three papers and an overview of chapters conclude this chapter.

1.2 Justification of the Study

Leadership cannot be exercised in a vacuum: leadership influences context and vice versa. Context is the milieu, circumstances, conditions, or environment— physical, social, or economic—in which leadership arises and is observed (Liden and Antonakis, 2009). It is the "the overall demands, constraints, and choices for leaders" (Osborn, Hunt and Jauch, 2002, p. 802). The current context of leadership is accelerating in complexity and, at times, is characterised by chaos (Avolio and Gardner, 2005). Distinguishing between simple, complicated, complex and chaotic contexts has been considered a core part of the work of leadership (Snowden and Boone, 2007).

There are a number of ways of describing today's context, including the FoW, Industry 4.0 and disruptive events. Malone (2004) describes the future of work as a "revolution in

business – it is self-organising, self-managed, empowered, emergent, democratic, participative, people-centred, swarming and peer-to-peer." (p. 4). Balliester and Elsheiki (2018) define the FoW in terms of the future of jobs whereas Santana and Cobo (2020) found four FoW themes in their research namely technological, social, political and economic each with significant impact on how leaders lead.

Industry 4.0 was first coined by Robleck, Meskp and Krapez (2016) in a proposal citing a new technology driven economic policy fit for the future environment. It is marked by full automation, intelligent production and digitisation of processes and the use of advanced technologies like artificial intelligence, big data and connectivity (Manyika, 2017).

This has led to increased competition, changes to consumer behaviour and obsolete and new mindsets, jobs and skills in organisations. In terms of Black Swans and other disruptive events, Aven (2013) gives us two ways to look at Black Swan events: "(i) as a rare event with extreme consequences, or as a term for expressing (ii) an extreme, surprising event relative to the present knowledge" (p. 47). Some authors believe that Black Swan events like COVID-19 have accelerated Industry 4.0 impacts and that we are now in Industry 5.0 or the Virtual Age (Mehendale and Radin, 2020).

In this study, the term 'future of work' is employed as an umbrella term to capture the aforementioned characteristics (i.e., increased paradoxes, contradictions, and tensions) associated with Industry 4.0 and Black Swan or disruptive events. The reason this of interest is that research shows that most leaders are not able to deal with these increased levels of complexity and, at times, chaos (Abeliansky, Algur, Bloom and Prettner, 2020; Acton, Foti, Lord and Gladfelter, 2019; Alavi and Gill, 2017; Artley, 2018; Bostrom, 2014; Bundy, Pfarrer, Short and Coombs 2017; Dirani, Abadi, Alizadeh, Barhate, Graza, Gunasekara, Ibrahim and Majzun, 2020; Heifetz and Laurie, 2001; Huang, Kahai and Jestice, 2010; Kelley and Kelloway, 2012; Marion and Uhl-Bien, 2001; Mihai and Cretu, 2019; Mitleton-Kelly,

2003; Mumford, Campion, and Morgeson, 2007; Nazarov and Klarin, 2020; Probert and Turnbull James, 2011; Robleck et al., 2016; Schwab, 2017; Smith, Erez, Jarvenpa, Lewis and Tracey, 2017; Schneider and Somers, 2006; Stacey, 2000; Stockton, Filipova and Monahan, 2018). Johnson, Birchfield and Wieand (2008) and Kovalenko and Kovalenko (2019) found that there is an increasing gap between the rapidity and scale of the increase of complexity in the environment and the ability of leaders to embrace and tolerate it effectively.

This research is corroborated by Kegan (in Harkins, 1994), Cook-Greuter (2004) and Dawson (2015) that all found that leaders are "in over their heads." Cook-Greuter (2004) found that of 4,510 adults only half could work in later stage action logics (meaning making capabilities) compatible with the level of complexity leaders face in the changing context they work in (achiever, individualist, strategist and unionist). Dawson (2015) similarly found that, of 512 leaders assessed for cognitive complexity, more than half could not operationalise systemic levels of thinking required in most managerial jobs.

The impact of this leadership complexity gap is that theory, models and practices of leadership and LD need to evolve at a fundamental level to address the increased complexity and chaos in the leaders' context.

To illustrate this, Zhu, Song, Zhu and Johnson (2019) conducted a bibliometric analysis of leadership articles between 1990-2017 in order to portray the landscape and trajectory of leadership research over time via co-citation and co-occurrence analyses. Only 15 studies addressed leadership in context. These findings are echoed in Gardner, Lowe, Meuser, Noghani, Gullifor and Cogliser's (2020) review of three decades of *The Leadership Quarterly* articles: they found only 5.6% of studies focusing on contextual influences in leadership.

More recently, Oc (2018) conducted a systematic review of how contextual factors shape leadership and its outcomes and found that, in the main, empirical research provided evidence

for the effects of contextual factors on leadership, but that there were important gaps in the literature. These gaps include considering how different discreet contextual factors interact with each other to fully represent the context in which leadership occurs.

In terms of how the FoW context impacts LD, Vince and Pedler (2018) concur that LD is falling behind societal trends and falls short of the responsibility to prepare leaders for complex environments. Vogel, Reichard, Batistic and Cerne (2020) find that LD remains very fragmented and in need of a comprehensive, holistic review. Watkins, Earnhardt, Pittenger, Roberts, Rietsema and Cossman-Ross (2017) explain the challenge facing leadership educators well in this statement: "Leadership educators are challenged with developing leaders who can sense environmental cues, adapt to rapidly changing contexts, and thrive in uncertainty while adhering to their values systems" (p. 148).

It is the intention of this study to address the gap in integrated, context-rich leadership and LD fir for the FoW. This will be achieved by developing and testing more integrated and context-rich leadership and LD themes and models in the context of the FoW. This is not an easy feat. Day and Sin (2011, p. 546) capture the challenge well when they write: "Part of the difficulty is that it requires melding one fuzzy construct (leadership) with something that is equally complex and nebulous (development)".

1.3 Purpose of the study

The purpose of this study is to develop and apply context-rich leadership and LD models fit for the future of work environment.

1.4 Research questions

In order to achieve the purpose of the study, the following research questions are proposed:

Q1. What are the emerging themes of research and practice of leadership in the future of work?

Q2. What could an integrated model of LD in the future of work look like?

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Q3. How can the integrated models of leadership and LD fit for the future of work be applied in a real-life and virtual corporate LD program?

1.5 Preliminary Literature Review

The literature review starts off with an overview of the FoW context, followed by a clarification of the difference between leader and leadership and leader development and LD. It then goes on to cover the history, criticism and future of leadership theory. Finally, the chapter concludes with a discussion of different LD approaches, criticism of current approaches and evolving research and practice.

1.5.1 The Future of Work (FoW)

The future of work (Industry 4.0 and Black Swans and disruptive events like COVID-19) create a crisis never before felt by leaders. These complex conditions create uncertain, ambiguous and emergent conditions which makes it hard to develop, deliver and lead future strategy for an organisation (Bostrom, 2014). Even before the onset of Industry 4.0 around 2014 and disruptive events like COVID-19 in 2020, leaders were dealing with the challenge of leading knowledge-based workforces and the increasingly team-based nature of work. In 2000, Mitleton-Kelly (2003) and Stacey (2000) call out the effect of complexity in ambiguous, uncertain and evolving environments on strategy and consequently the type of leadership required.

Several authors question whether we need new leadership paradigms due to COVID-19 (Claus, 2021; Forester and McGibbon, 2020). COVID 19 both accelerated Industry 4.0 and creates significant disruption in work and place of work.

Organisations and leadership need to be placed in this context, which calls for a vantage point of complex adaptive systems, leading in turbulent times, leading distributed teams and building resilience. Schneider and Somers (2006) argue that, if organisations are viewed as

self-organising complex systems, the role of leadership should be re-conceptualized. Amagoh (2009) writes that the goal of LD should be to increase leadership effectiveness in guiding organisations through periods of uncertainty and change. Claus (2021) writes that:
"Leadership development is a process of growth that uses defining moments like the pandemic as an opportunity for reinvention" (p. 166)

1.5.2 Leader vs Leadership and Leader Development vs Leadership Development (LD)

In this section, the confusion between the concepts and applications of leader/leadership and leader/leadership development is discussed to provide the frame for the study. It is found that most research and applications actually refer to the individual leader or leader development. The frame of individual leader as the focus of leadership and LD is challenged and it is proposed that leadership "requires that individual development is integrated and understood in the context of others, social systems, and organizational strategies, missions, and goals" (Olivares, Peterson and Hess, 2007, p. 79). Therefore the terms leadership and leadership development (LD) are more appropriate and will be used in this thesis.

1.5.3 Leadership

1.5.3.1 A Fragmented Field. The sheer number of taxonomies, theories and paradigms shows the confusion about what leadership is. The history of all these concepts and the different number of theories are described in more detail in the literature review.

1.5.3.2 Stages and Eras of Leadership Theory. The proliferation and disparate nature of the leadership research and practice arise from the evolution or eras of leadership that are all still being used even though the context of leadership has evolved.

King (1990) and Van Seters and Field (1990) describe leadership as "one of the most complex and multifaceted phenomena to which organisational and psychological research has been applied" (p. 43). Kelly (2018) describes leadership phases for each Industrial Revolution which provides an interesting trajectory within which the evolving theories can be

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placed. Each of the theories is described in more detail in the literature review. To make further sense of the number of disparate approaches, researchers such as Dinh, Lord, Gardner, Meuser, Liden and Hu (2014), Gardner, Lowe, Moss, Mahoney and Cogliser (2010) and Zhu et al. (2019) conducted extensive reviews of leadership theory and articles.

1.5.3.3 Criticism of Past and Current Leadership Theory. From the literature several criticisms of leadership theory and practice emerge from authors such as Banks, Gooty, Ross, William and Harrington (2018), Bennis (2007) and Kupers and Weibler (2006). A general criticism pertains to the proliferation and disparity of leadership constructs and a need for refinement and integration. Another key criticism is that current leadership approaches are lacking in its ability to understand leadership in complex adaptive systems as opposed to standardised, simple approaches mainly dominated by competence and trait approaches.

1.5.3.4 Leadership in the FoW. Context of leadership can be understood by understanding the whole environment within which leadership occurs whether it be strategy, people, environment, economic, social or political. (Liden and Antonakis, 2009). As the context changes, to be effective leadership also has to change and be embedded in its context (Osborn and Marion, 2009). Researchers, including Porter and McLaughlin (2006) and Oc (2018), have reviewed leadership research on context and found it one of the most trending topics. Importantly, Oc found critical gaps in the literature, namely that there is a nuance to how different contextual factors interact with each other and this affects leadership effectiveness.

Osborn et al. (2002) states it thus: "Leadership and its effectiveness, in large part, is dependent upon the context" (p. 797). They argue that leadership is embedded in context and is socially constructed. Leading in complex and disruptive times needs complex leadership. In addition, COVID-19 has brought a different addition to how we see leadership.

As a starting point in understanding evolving leadership theory and practice in this future of work context, King (1990) and Van Seters and Field (1990) proposed the current era of

leadership as more complex and integrated than any of the eras before. They name it the Integrative Era. These ideas received further attention through the work of Avolio (2007) and Lord Brown, Harvey and Hall (2001), who called for more integrative strategies for leadership theory-building to lead to more coherent theories.

Supporting this notion, a systems approach to leadership has been proposed by authors such as Coffey (2010) to deal more effectively with complex and uncertain environments. Other authors also advocate for a more integrated focus on developing leadership expertise (Day, 2009), new perspectives on the role of leader identity (Day and Harrison, 2007) and the development of adaptive leadership capacity (DeRue and Wellman, 2009). Acton, Foti, Lord and Gladfelter (2019) agree, and describe leadership as emergent, dynamic, multi-level and process-oriented. They developed an integrative framework of leadership emergence at an individual, relational and collective level. Sobral, Carvalho, COVID-19 has spurred authors like Lagowska and Grobman (2020) to call for increased leadership sense making.

Many more emergent themes in leadership in the context of the future of work are being investigated in the light of a more complex future of work. These themes include digital leadership, remote leadership, human leadership, integral leadership and purpose-driven, moral and ambidextrous leadership.

1.5.4 Leadership Development (LD)

As a starting point, the literature calls out the difference between leadership and LD research. The review then covers the history of LD starting with Carroll and Levy's (2010) categorisation of LD in functionalist, constructivist, and social constructionist approaches. Use of different frames leads to significant differences in LD criteria and models. The frame being used helps us understand the underlying assumptions and patterns for LD in the future of work. Each of these approaches is discussed in more detail below.

1.5.4.1 Different Approaches to LD. Earlier attempts at guidelines for LD were

functionalist and individual-focused. Constructivist approaches regard LD as more of an identity transition and as a social interaction. What emerges is that the frame of constructivist approaches have been proposed as a better fit for the future of work. This is because knowledge and competencies are becoming more transient due to the rapidity of change in the future of work (Hall and Rowland, 2016). Constructivist approaches are influenced by adult development theory – it assumes people constantly make sense of themselves and their experiences (Kayes, 2002) therefore continuously growing and changing as they progress to higher levels of complexity.

1.5.4.2 Criticism of Current LD Approaches. Next in the literature review, criticism of current LD approaches is discussed in regard to a lack of impact, overreliance on trait- and behaviour-based approaches, disconnected haphazard approaches and lack of measurement of impact. Theorists write that the lack of impact is due to programs focused on promoting leadership literacy but not an increase in leadership competence and leaders regress to old patterns. Others write that LD is falling behind social trends and is failing to prepare leaders for complex environments. Most importantly, LD is influenced by the leadership model underlying it and researchers have found that many development programs have no clear leadership frame. There is a schism between research and practice.

One of the prevailing criticisms of LD programs is the overreliance of competence (trait and behaviour) approaches. LD has over-emphasised pre-defined skills and competencies and disregarded collective and individual learning and practice. Liu, Venkatesh, Murphy and Riggio (2020) write that traditional ways of LD that occur mainly in the workplace and during adulthood are limited in their impact.

Most importantly, the context in which leaders lead is inadequately considered in most programs and in research. Hotho and Dowling (2010) found that participant interaction with LD programs varied, depending on individual and/or contextual factors. Other research also

found significant differences in the context in which leaders lead poses challenges for current one-size-fits-all, programmatic approaches (Bligh, 2006; Gibson, 2016; Osborn et al., 2002; Storey, 2004).

1.5.4.3 LD in the FoW. LD follows leadership theory evolution. Therefore LD should equally be considered in the FoW. The understanding of systems behaviour and complexity concepts are essential aspects of LD for the challenging contexts leaders are faced with. LD needs to disrupt the current heroic myths and leadership, the cult of individual achievement and leadership as inherently good and include critical perspectives on how leaders can go astray (Dugan and Turman, 2018; Ennova, 2015; Karp, 2020). It should further stimulate real-time learning that maximises engagement, promotes agility and leads to horizontal and vertical growth. Effective LD therefore starts with the leadership concept which must represent leadership requirements for the future it desires (James and Burgoyne 2001; Probert and Turnbull James 2011).

As with leadership, there is an emerging need for the integration of the various disparate LD theories and frameworks to achieve this. Authors such as Weiss and Molinaro (2006), Lekiw and Singh (2007), Day, Harrison, and Halpin (2009), O'Connell (2014), DeRue and Myers (2014) and Veldsman (2017) all propose integrated frameworks and models for LD in their research. More specifically, the models of DeRue and Myers (2014) and Veldsman (2017) start to address some but not all of the emerging research and practices in LD in the context of the future of work.

A critical change is the vantage point of LD. Clarke (2013) puts forward a model for Complexity LD. Veldsman (2017) proposes LD embedded in a triangle of Context-Organisation-Followers with dynamic alignment between the three. Researchers like Kegan and Lahey (2010) address key gaps in areas previously excluded in LD – that of adult development. Another critical change to the way LD is conceived is the use of the design-

thinking approach to LD (Nuzzaci, 2010).

Another change is in the pedagogy deployed in LD. A good vantage point to start with is the convergence of leadership and learning. According to Mikkelsen and Jarche (2015) the best leaders are constant learners in the future of work and in ongoing disruption. In terms of the ways of development, interdisciplinary, social constructivist, relational and blended approaches have been shown to be more effective than other methods. These are all discussed in more detail in the literature review. Some of the key themes include the shift to mindset development, interdisciplinary approaches and constructivist and transformative learning. LD itself needs to focus less on content and methods and more on the context, dynamic process and conditions of learning. The newer pedagogies of experiential and action learning and the pivot to blended, digital learning experiences are all discussed in more detail. Development needs to be evaluated and adapted in an ongoing way to ensure real impact.

In summary, what is clear is that traditional myopic views of leadership and LD are not delivering the impacts needed to help leaders (the ecosystem) thrive in the new world of work and an ongoing disruptive context. Emerging theories should be considered, and integrative models and principles developed, to address these shortcomings in both leadership and LD. What leadership is needs to be challenged and how leadership is developed needs to follow.

1.6 Research Methodology

This chapter examines the research methodology adopted in the study. An in-depth discussion is provided around the research philosophy and rationale, and the research methods, data collection and data analysis approaches. The nature of the study presented in this thesis is exploratory, building on existing knowledge and theories, but it is also receptive to any new or as yet unthought-of relationships or phenomena. This study uses a positivist qualitative method. The key reason for this approach is that there is an initial generation of models – therefore 'generative' in nature. Qualitative research suits the study well, as it helps

make sense of complex social phenomena – leadership and LD and the context of leadership and LD. The research methodologies adopted in this thesis include qualitative, positivist methods of data collection and analysis. Data collection methods include a scoping review, semi-structured interviews and a case study. Data analysis methods include thematic analysis using WordItOut and NVivo 12, program evaluation methods and triangulation.

A high level overview of the research methods will be provided here followed by in depth discussions in the subsequent chapters. In terms of the research methods, the research started with a scoping review of the literature pertaining to leadership and LD in the context of the future of work as a way of synthesising research evidence (Pham, Rajic, Greig, Sargeant, Papadopoulos and McEwen, 2014). As leadership and LD research and practice are made up of so many disparate views and theories, a scoping review helps to narrow the topic in the context of the future of work and identify critical gaps. The literature scoping review was conducted using Emerald, Google Scholar, Science Direct, ProQuest, and Web of Science, using keywords such as leadership, leadership/leader development, leadership/leader training and future of work. At the end of the analysis, broad themes were identified and reviewed in terms of whether they made sense overall before being written up. In order to identify themes, NVivo 12 coding to nodes was used.

Furthermore, semi-structured interviews with judgment sampling were used. Questions could be clarified for the interviewee and answers followed up as appropriate (Gillham 2000; Leedy and Ormrod, 2005). The process used included recruiting the respondents, drafting the questions and interview guide, selecting techniques for this type of interviewing, and analysing the information gathered. In order to develop initial themes, all texts from the interviews were copied into WordCloud software and a word count was done to see which themes were mentioned most often. Vignettes from the interviews were also used to illustrate key themes for this study, and they also served as support for the results of the study (Leedy

and Ormrod, 2013). The themes emerging from the scoping review were then triangulated with those of the semi-structured interviews.

Finally a qualitative case study method was used to evaluate the effectiveness of a global and virtual senior LD program in a professional services firm (PSF) based on the models of leadership and LD in the context of the future of work. Yin's (2018) stages were followed. For the case study, there were two groups of participants: an executive team that sponsored the development program (10) and the 150 LD program participants that were all CEO and Business Unit Level Leaders from the 130 international markets in which the organisation operates in outside of the US and Canada.

In order to evaluate the outcomes of the program, the Kirkpatrick (1994) model was used, primarily at levels 3 and 4, comprising semi-structured interviews with the executives and coaches of the participants, a learning evaluation questionnaire using a 7-point Likert scale for the participants and the sales and business development results for nominated client challenges that formed part of the program. NVivo manual coding was used to identify the themes from the interviews and SurveyMonkey for the administration and analysis of the learning evaluation questionnaire. Most importantly, client business development and sales data were tracked through the client's Customer Relationship Management (CRM) system to track business results. Mitigating factors had to be taken into account when analysing the data, including the impact of COVID-19, organisational restructures and other sales initiatives.

Once all the data were collected, the results of the survey and interviews were triangulated and key themes developed from all levels of analysis to identify the effectiveness of the leadership and models as a design and implementation framework for the program and the results and lessons from the program.

1.7 Preview of Three Papers

1.7.1 Paper One. Leadership 4.0

This paper describes the evolution of organisations and work and how that affects the effectiveness of the leadership approaches at the time. Then key gaps are identified in the evolutionary studies and a call is made for a new era of leadership to be integrative and holistic as this is required by the complexity of the environment in which leaders operate.

Once the gaps are identified and the evolutionary elements that need to make up an integrative model are decided, I look at the work done to date and further develop such future-fit models. The paper proceeds to describe the building of the model based on the seminal work by Day et al. (2009) in integrating adult development with behavioural and competency approaches to develop an updated and integrated meta model for leadership in the FoW. An additional layer below adult development is proposed, namely, an ethical/moral layer, and the extended model further embeds the layers in the context and in level differences. Additionally, the pre-requisite mindsets of growth, curiosity and learning agility are proposed as enablers of accelerated learning and openness for the required changes.

The paper concludes with the proposal that Leadership 4.0 is integrative, complex, and multi-layered. There is a need for lifelong horizontal and vertical development journeys using adult development theory, virtuous cycles, and neuroplasticity as core theories of continuous growth. The underlying assumptions is that it is not an individual leader endeavour, but rather that leadership needs to be scaled to enable work in new contexts of digital, virtual, and flexible environments that are in constant flux with wicked problems that can only be solved collectively.

1.7.2 Paper Two. LD in the Context of the FoW

Leadership and how leaders are developed have changed at a paradigmatic level in the context of the future of work and COVID 19. This has resulted in leaders struggling to deal

with the pace and complexity of their context and feeling exposed and vulnerable. Practitioners, on the other hand, are faced with a complexity and lack of approaches and models appropriate for the new context. LD can therefore benefit from an updated view, with common development criteria and a model for LD in the context of the future of work and COVID 19 that is a better fit for purpose.

Following a review of the literature of the last 20 years, 22 interviews with leadership thought leaders and analysis of two integrative models that most closely address LD in an integrated way in the future of work, I propose development criteria and a model for LD fit for purpose in the future of work and during and post COVID 19.

1.7.3 Paper Three: Lessons from a Complex Senior LD Program

This paper is a practical application of the models and criteria of leadership and LD in a real-life global and virtual LD case study. In this case study, I describe how I used future fit development criteria and a model for leadership and LD in an LD program of 150 senior global leaders of a Professional Services Firm. The case was selected because I was directly involved in the design and delivery of the program as a consultant and could use the design criteria and model of LD in my previous research in leadership and LD in the context of the future of work and during the COVID crisis.

1.8 Contributions to Theory and Practice

The study makes several contributions to knowledge and practice relating to leadership and LD in the context of the FoW. Ultimately, we hope this discussion will provide additional building blocks to guide future theory-building and research to better understand the implications of contextually nuanced, processual leadership and LD. The specific contributions are discussed further below.

1.8.1 Theoretical Contributions

1.8.1.1 Salience and Relevance of Context. First, the study advanced our understanding on the salience and relevance of context in leadership. This model therefore adds to the thinking of 'what' leadership is in the context of the future of work informed by a literature scoping review and interviews with innovative practitioners. Corroborating Day et al's (2009) integrated three-layered approach to leadership and highlights the importance of adult development properties (i.e., identity development, moral development, epistemic cognition, reflective judgment, critical thinking), the proposed model adds a fourth layer, namely underpinning moral/ethics and mindsets (growth mindset, curiosity and learning agility). It also adds a contextual dimension for the four layers to be considered in. In other words, the model depicts leadership as an ongoing social interaction involving all organisational actors and needs to take into account the complexities of contemporary circumstances. (Carroll et al, 2008, Kennedy et al, 2013).

1.8.1.2 A Comprehensive Process-based LD Model. Second, the study advanced our thinking of LD by developing a most comprehensive, process-based LD model that extends prior work on sequential process models of LD. Scoping review of extant literature suggests that the current LD approaches are context-detached in the following three ways: an overemphasis on competencies, an overemphasis on individual leaders, and a lack of evaluation and impact. It is proposed that six interrelated contextual dimensions are considered based on analyses of this scoping review, interview data and refinement of two notable LD models (De Rue and Myers, 2014; Veldsman, 2016). The six contextual dimensions are environmental, developmental, relational, pedagogical, temporal and technological.

Overall though this research supports the position that there is an underlying pattern to the complexity of context in LD, future studies should extend this research by focusing on each of the individual contextual domains.

1.8.1.3 Preliminary Validity of the Proposed Models. Third, and more practically, through testing of the proposed models in a real life senior LD program, the study provides preliminary validity to the models. The case study approach employed in the current study provide support for the models' efficacy and viability to be employed by PSFs and other pertinent organisations that aim to engage in impactful and complex LD programs. Specifically, the processual model can serve as a comprehensive roadmap comprising specific contexts, each of which can be used by organisational leaders to assess current leadership gaps, measure leadership effectiveness, and inform leadership assessment, development, and selection in organisations iteratively.

1.8.2 Practical Contributions

Practically, the model developed in this study can be employed as a comprehensive roadmap and applied to specific contexts within the organisation to assess current gaps, measure leadership effectiveness, and inform leadership assessment, development, and selection in the organisation.

1.8.2.1 A Powerful LD Design Framework for Practitioners. The application of the six interconnected contextual dimensions of LD (based on the work of DeRue and Myers, 2014; Veldsman, 2016; Roux et al., 2022) provided a powerful framework for the design and delivery of the case study program.

This study tested the models of leadership and LD via a real life senior leadership program and showed anecdotal evidence that the four layer, contextualised model of leadership and the six interrelated contextual dimensions framework for LD has face validity. Validating the models in a real-life case study and evaluating the learning impact and business results help test the models in the real world of practitioners and provide lessons learnt to guide future LD research and programs.

Future researchers can replicate the models and approach in different LD programs to

further test its efficacy.

1.8.2.2 Client and Context-informed LD. The second practice contribution is the client and organisational context-informed process of LD that is an iterative in nature. This provides a more realistic and evolving process of LD that addresses the messy reality of leadership and LD. Engestrom (2006) states that capturing the contextual background can be unstable since its elements are in constant motion.

Future researchers can test and retest the approach in different messy and evolving realities to confirm its efficacy.

1.8.2.3 Contribution to Virtual LD. The third practice contribution is the contribution to virtual LD and how it is evolving as a way forward in the future of work context which provides a more cost effective, evolving and scalable approach to LD. Although not new, the COVID-19 pandemic has accelerated the trends of moving from 'in-person' to blended and virtual. Sowcik et al. (2018) found that on-line delivery programs significantly reduces cost, optimises participant time and provide synchronous and asynchronous learning opportunities (Sowcik et al., 2015, Vallo Hult and Bystrom, 2021).

Anecdotal evidence from the interviews and evaluation questionnaires indicate that the fully remote approach delivered impactful development. Future researchers can replicate the approach in future fully remote, large scale LD programs to test the impact on cost, scale and effectiveness.

1.9 Overview of the Chapters

The overall structure of this thesis consists of seven chapters. Chapter 1 has presented the background and purpose of the study, followed by a summary of research questions, methods, and findings arising from the three studies. Chapter 2 presents a review of the theoretical frameworks and literature informing the thesis. Chapter 3 presents the methodology and foundations of the research. Chapter 4 contains a published book chapter

(Paper A), a systematic review and semi-structured interviews to develop a model of leadership in the context of the future of work and ongoing disruption. Chapter 5 presents Paper B, a systematic review of and semi-structured interviews of LD and the development of a processual, context-rich LD model. Chapter 6 presents Paper C, a case study of a global and virtual LD program in the context of the future of work and ongoing disruption. Chapter 7 synthesizes and concludes the findings of the three papers to present them in the context of PhD research and thus provides important theoretical and practical implications.

2. In-Depth Literature Review

2.1 Introduction

This chapter begins with an overview of the context leaders are leading in - namely the FoW. This is followed by a discussion of the difference between 'leader' and 'leadership', and then 'leader development' and 'leadership development' (LD) and finds that there are many different definitions and applications of these concepts in the research and practice of leadership and LD. It then provides an overview of the history of leadership theory and research from trait, behavioural, contingency and integrative theories and explores how leadership research has evolved over the last three decades. With this background in mind, it goes on to discuss the criticisms of current leadership theory and practice with their narrow focus on standardised, easy to measure and explain concepts (i.e. competencies and traits) versus mental map, practice, and values concepts that are harder to change, understand, measure and develop.

Since LD theories follow leadership theories, the history and evolving concepts of LD that are the mainly functionalist, constructivist, and social constructionist approaches are discussed. Again, the lack of impact from and criticism of LD mainly arise from the use of trait- and behaviour-based approaches and outdated pedagogies.

2.2 The Context: Future of Work (FoW)

Context is the milieu, circumstances, conditions, or environment— physical, social, or economic—in which leadership arises and is observed (Liden and Antonakis, 2009). We are in one of the most challenging contexts in history, with Industry 4.0 and disruptive events like COVID-19 converging to create a crisis never felt before by leaders. It is critical that leadership and LD research and practice prepare leaders to lead effectively in this context. We therefore need to make sense of the plethora of theories and definitions and assess their

effectiveness in this challenging context. We start by understanding this context further.

The FoW (Industry 4.0 and disruptive events like COVID-19 and the war in Ukraine) create a crisis never before felt by leaders. These complex conditions create uncertain, ambiguous and emergent conditions which makes it hard to develop, deliver and lead future strategy for an organisation (Bostrom, 2014). Even before the onset of Industry 4.0 around 2014 and disruptive events like COVID-19 in 2020, leaders were dealing with the challenge of leading knowledge-based workforces and the increasingly team-based nature of work. In 2000, Mitleton-Kelly (2003) and Stacey (2000) call out the effect of complexity in ambiguous, uncertain and evolving environments on strategy and consequently the type of leadership required.

2.2.1 Industry 4.0

According to the visionary work of Schwab (2017), Industry 4.0 is evolving at an exponential rather than linear pace that not only changes the "what" and the "how" of doing things, but also "who" we are. Bostrom (2014) states that we find ourselves in an era of strategic complexity, characterised by uncertainty. Organisations and leadership are now driven by paradoxes, contradictions, tension and differentiated interests between actors (Smith, Erez, Jarvenpa, Lewis and Tracey, 2017).

Nazarov and Klarin (2020) completed a bibliometric analysis to gain a holistic assessment of the ecosystem of Industry 4.0. The found three broad clusters: the implications of automation for industry, the integration of technologies and the technological advancements driving Industry 4.0. From this research they provide an integrated and updated definition of Industry 4.0:

> the integration of networking capabilities to machines and devices that allows seamless collaboration between the digital and the physical ecosystems for increased efficiencies in the organizational value chains that transforms industries and the society for an increased

level of productivity and efficiency. (p. 550)

2.2.2 COVID-19

Disruptive events like COVID-19 have accelerated Industry 4.0 trends and have also brought with them the need for understanding leadership in a new way in times of disruption and crisis. Boin (2005) reviewed the crisis literature and argued that a crisis can destabilise an organisation and its workers. In such situations organisations have to work under stress, which leads to remarkable challenges for business leaders.

The COVID-19 pandemic has caused the acceleration of digital transformation and hybrid working has brought its own challenges in terms of inclusion, culture and belonging (Georgiadou and Antonacopoulou, 2020; Knight, Doina, Lee and Parker, 2022; Schiliro, 2021). The impact of the virtual age further accelerates the need for effective and strong corporate cultures to be built that express the values of the firm and there will be a need to continuously promote connectivity and interventions that can prevent isolation among employees. The ability to quickly build inter- and intra-organizational relationships could be critical in a virtual work setting (Mehendale and Radin, 2020).

2.2.3 Ongoing Disruption

Ongoing disruption is wide spread – climate change, the war in Ukraine and stagflation are just some of the most recent events. Marion and Uhl-Bien (2001) and Stockton et al. (2018) provide an overview of this new context: An environment dominated by advanced technology, more global and constantly evolving and changing. This changing environment impacts the business model, strategy and operations significantly and combined with a mobile and hybrid workforce necessitates different leadership and the need to understand how human systems operate and self-organise. In these systems leaders are not in control, but rather become enablers of desired future states.

As well as these transformations, since 2014, digitalisation and global political turmoil

have placed leaders under significant additional stress and organisations face large-scale

disruption and complexity in a world that is more emergent and ambiguous than ever before

(Alavi and Gill, 2017). Mihai and Cretu (2019) state that transformational challenges faced

by leaders in the digital age include major budget cuts, maintaining growth, innovating, going

global, dual strategic timelines and technological disturbances. Artley (2018) warns that we

continue to underestimate the scale and speed of change that leaders have to navigate and

lead in in an integrated, positive, human and impactful way in Industry 4.0.

Organisations and leadership need to be placed in this context, which calls for a vantage

point of complex adaptive systems, leading in turbulent times, leading distributed teams and

building resilience. Schneider and Somers (2006) argue that, if organisations are viewed as

self-organising complex systems, the role of leadership should be re-conceptualized.

2.3 Leader vs. Leadership and Leader Development vs. Leadership Development (LD)

Concepts of effective leader behaviour and leadership are regularly confused and are

applied to a host of situations, organisations, and competencies (Clark and Gruber, 2017).

The sheer number of definitions for the terms leadership and leader alone is evidence of the

problem this presents (Alimo-Metcalfe and Lawler, 2001; Northouse, 2016).

In an ideal world, leadership theory informs LD practice. However, when leadership

theory is out of date, LD practices are too. Clark and Gruber (2017) and Day and Sin (2011)

lament the complex, confusing and inconsistent approaches to leader and LD in both

research and practice.

A further challenge is the difference between leader/leadership and leadership

development (LD). It is important to distinguish between the terms 'leader development' and

'leadership development'. Day, Fleenor, Atwater, Sturm and McKee (2014) posit that "leader

development focuses on developing individual leaders whereas leadership development (LD)

focuses on a process of development that inherently involves multiple individuals (e.g., leaders and followers or among peers in a self-managed work team)" (p. 64). Others like Oliveras et al (2007) agree that LD based on the individual is not sufficient to be effective and argue that LD should occur in the context of the complex environment it occurs in.

Dalakoura (2009) writes that, although most studies cover LD, they actually mean leader development – developing the leadership skills of individual leaders. Leadership is a much more complex phenomenon than individual leader behaviour and skills – it is a social process involving everyone in the organisation. Salicru (2020) concurs: "leadership relates to the process and practice of achieving results, leadership development relates to the pedagogical process, theory and methods" (p. 82).

Furthermore, a consistently effective and proven LD methodology has yet to be developed (Alvesson and Jonsson, 2016; Beer, Finnstrom and Schrader, 2016; Rowland, 2016). Day et al. (2014) suggest that future research needs to focus on development as much as on leadership in order to shed new light on how development occurs.

2.4 Leadership

The field of leadership is a much studied and widely contested field of research and practice. In this section, I attempt to make sense of the current and future state of leadership research.

2.4.1 A Fragmented Field

A review of 50 years of study of leadership by House and Aditya (1997) illustrated the extent to which the phenomena of leadership has evolved. Fleishman et al. (1991) attempted to describe a functional interpretation of the different leadership taxonomies presented in the literature and identified over 65 different taxonomies. Winston and Patterson (2006) delineated a holistic definition of leadership and presented a nearly 1000-word definition incorporating over 93 different dimensions. Kellerman (2012) describes 40 leadership

theories, Couturier (1992) identified 58 theories of leadership, while Meuser, Gardner, Dinh, Hu, Liden and Lord (2016) contended that the number of leadership theories is upwards of 60.

Others argue there are fewer. Northouse (2016) observed 16 theories, while Meuser et al. (2016) argued that the majority if not all leadership theories can coalesce around only six focal leadership theories: charismatic theory, transformational theory, leadership and diversity, strategic theory, participative/shared leadership, and trait theory. For Lussier and Achua (2007), leadership has evolved over the past 60 years to produce four major paradigms: trait, behavioural, contingency, and integrative. Mango (2018) writes that leadership is governed by over 66 theories, which leaves many leaders and scholars searching for an inclusive theory. In his research, he eliminated 44 theories to avoid repetition and or minor differences, leaving him with 22 core theories.

Dinh et al. (2014) conducted an extensive qualitative review of leadership theory across 10 top-tier academic publishing outlets and provide a framework for emergence and levels of analysis as a means to integrate diverse leadership theories. In this review, they have identified 752 articles that focused on the topic of leadership, which include and go beyond the 353 articles identified by Gardner et al. (2010) in LQ alone between the years 2000 and 2009. They noted that, while significant research was still occurring at the dyadic level, interest in strategic leadership approaches was the most prolific of the emerging leadership theories (182 instances) of any of the emerging thematic categories.

Zhu et al. (2019) conducted a bibliometric analysis of leadership articles between 1990 and 2017 in order to map the landscape and trajectory of leadership research over time via co-citation and co-occurrence analyses. Their findings are shown in Table 1.

Table 1. Bibliometric analysis of leadership articles 1990-2017

Number of studies	Topic of focus
16	Integrative reviews of leadership research in general
82	Transformational and charismatic leadership
10	Leader-member exchange theory
31	Value based leadership – ethical, servant and authentic leadership
20	Abusive supervision
15	Leadership in the team context
26	Other, i.e., intercultural leadership, complexity leadership, paternalistic leadership and paradoxical leadership

These findings are echoed when Gardner et al. (2020) reviewed the third decade of *The Leadership Quarterly*. The three decades are shown in Table 2.

Table 2. Three decades of Leadership Quarterly research

Decade	Themes
Decade 1 (1990-1999)	Neo-charismatic leadership theories, like transformational leadership (34% of focal theories in LQ). Contingency theories (12%), Multiple level approaches (9%) and Trait theories (8%). A full quarter can be classified as other theories like diversity, cross-cultural leadership and managerial work. 14% of the articles were classified as New Directions.
Decade 2 (2000-2009)	New Directions exploded to 44% of the articles. Emerging theories like ethical/servant/authentic leadership (5.4%); The development and identification of leaders and leadership (5.5%) and contextual influences on leadership (5.6%). The proportion of neo-charismatic articles declined.
Decade 3 (2010-2019)	Transformational leadership emerged again as the most commonly researched theory (7.6%) of which charismatic theories only made up 3.4% of the articles. Many of the articles in LQ in the past decade lacked a focal theory, but rather included multiple theories, focused on methods rather than theory or reflected new conceptual perspectives. Included in these new conceptual perspectives, only 5% of the articles

Decade	Themes
	were about leadership development.

2.4.2 Stages and Eras of Evolution of Leadership Theory

One way to make sense of the fragmented field of leadership is to understand it in terms of stages or eras. Yammarino (2013) describes the history of leadership in three stages: the past (antiquity to 1900), the present (1900-2012) and the future (2012-2025). The past focused on renowned and prominent leaders and some social reformers but with no systematic scholarly research to back this up. The year 1900 marks the start of scholarly research into leadership. Prior to 1970, most leadership research focused on the leader as a person, the group he or she led and the effectiveness of that group, and leadership styles became popular. In the 1970s the focus shifted to multiple leader-follower relationships and dyads. In the 1980s, 1990s and 2000s another set of ideas emerged that focused more on collectivist leadership. Throughout all these decades, the key question that kept on emerging was whether leaders were born or made.

King (1990) and Van Seters and Field (1990) describe leadership evolution in "eras" and argued that each new era developed as a result of the inadequacies of previous eras in describing leadership in practice.

2.4.2.1 Trait Theories. Pestana and Codina (2019) explained the history of leadership as commencing with a view of leaders as gifted and charismatic and as possessing certain traits. The research then moved on to situational theories, where the context of the leader shaped leadership. In more recent years, interpersonal relationships gained greater relevance.

Banks et al. (2018) reviewed the research on leadership behaviour from 1990-2017 and found that the leadership domain had shifted from a focus on inspirational leadership to a moral person framework of ethical, servant and authentic leadership. It is certainly a

confusing field of research and practice with so many different views and findings. In unpacking it, I will attempt to provide a description of the evolution of the theories.

Oc (2018) argued that, by identifying the innate qualities and characteristics possessed by great social, political, and military leaders, one could find appropriate kinds of people to hold the reins of power.

2.4.2.2 Style Theories. This was followed by Style Theory. The style approach to leadership conceptualizes leadership as a "form of activity" and focuses on what leaders do and how they act (Northouse, 2001). Yukl et al. (2002) created a meta-model to help understand the various leadership styles; they created three meta-categories: relations-oriented styles, task-oriented styles and change-oriented styles.

2.4.2.3 Situational and Contingency Leadership. As research progressed, situational leadership emerged (Northouse, 2001). Situational leadership theory proposed that effective leadership required a rational understanding of the situation and an appropriate response, rather than a charismatic leader with a large group of dedicated followers. Situational leadership in general and Situational Leadership Theory (SLT) in particular evolved from a task-oriented *versus* people-oriented leadership continuum (Graeff, 1997; Grint, 2011).

Contingency theory, similar to situational theory, looked to match the traits of leaders with the context. This theory suggested that a leader's effectiveness depended on how well the leader's style fit the context, and that effective leadership was contingent on matching a leader's style to the right setting. These approaches included path-goal theory and psychodynamic approaches (Northouse, 2001).

2.4.2.4 Transformational and Transactional Leadership. Post-heroic models of leadership emerged as a response to the evolving nature of work. Bormann and Rowold (2018) argue that, since the 1980s, the leadership triad of transformational leadership, transactional leadership and laissez-faire has developed into the most researched leadership

model to date.

Transformational leadership theory, which proposes that transformational leaders engage in behaviours related to the dimensions of Charisma, Intellectual Stimulation, and Individualized Consideration, has been "the single most studied and debated idea with the field of leadership" (Diaz-Saenz, 2011, p. 299). Transactional leadership focuses on the exchanges that occur between leaders and followers (Bass 1985; 1990; 2000; 2008; Burns, 1978). Burns (1978) operationalized the concepts of both transformational and transactional leadership as distinct leadership styles.

2.4.2.5 Authentic and Servant Leadership. In the 2000s, Avolio and Gardner (2005, 2010) began advocating for authentic leadership to advance thinking in positive forms of leadership. They proposed this approach in response to their finding that over the last 100 years most leadership theories had originated without a focus on the essential core processes that resulted in the development of leadership that would be characterized by those models, e.g., a path-goal leader. They conceived of the model of authentic leadership starting with, and integrating throughout, our conceptualization of the dynamic process of development in context. Avolio, Luthans and Walumbwa (2004) define authentic leaders as "those who are deeply aware of how they think and behave and are perceived by others as being aware of their own and others' values/moral perspectives, knowledge, and strengths; aware of the context in which they operate; and who are confident, hopeful, optimistic, resilient, and of high moral character (p. 4, cited in Avolio et al., 2004). In this definition the intent was to define leadership as multi-dimensional and multi-level and differentiated from currently popular leadership theories as more generic and a root construct.

Seen as closely related to authentic leadership is the theory of servant leadership – also a topic of many research papers. Eva, Cox, Tse and Lowe (2019) conducted a systematic review of Servant Leadership after identifying a lack of coherence around the construct that

impeded its theory development. They offered a new and integrated definition, and a review of the measures, theories and research design methods used in servant leadership research. They concedes that there remained questions about the conceptual and empirical overlap between servant leadership and transformational, ethical and authentic leadership. They offered a new definition of servant leadership:

Servant leadership is an (1) other-oriented approach to leadership, (2) manifested through one-on-one prioritizing of follower individual needs and interests, (3) and outward reorienting of their concern for self towards concern for others within the organization and the larger community. (p. 114)

Avolio and Gardner (2005) proposed that authentic leadership can incorporate transformational, charismatic, servant, spiritual or other forms of positive leadership. However, in contrast to transformational leadership in particular, authentic leadership may or may not be charismatic.

Finally, Hoch, Bommer, Dulebohn and Wu (2018) compared authentic, ethical and servant leadership (positive leadership) with transformational leadership across a range of organisational measures to understand the variance of the positive leadership forms. They found in their meta-analysis some evidence of conceptual redundancy between the positive leadership and transformational leadership concepts, especially with authentic leadership (.75) and ethical leadership (.7). Interestingly, with servant leadership it was much lower (.52) and therefore servant leadership could address the moral dimension gap found in transformational leadership theory. This is confirmed by research by Lee, Lyubovnikova, Tian and Knight (2019) which found that servant leadership has predictive validity for performance-related outcomes above other leadership approaches and should therefore be considered as an important part of the integrative leadership theory equation in the future.

2.5 Criticisms of Current and Past Leadership Theories

Prevailing leadership theory have not adequately provided the frameworks to assess and develop leaders that can lead effectively in complex and disruptive environments. There are several challenged with current theories including mutually exclusive paradigms, a proliferation of new constructs and construct redundancy and the continued use of outdated theories.

2.5.1 Mutually Exclusive Paradigms

Authors such as Kupers and Weibler (2006) and Bennis (2007) raise the point that the prevailing leadership approaches are fragmented or have mutually exclusive paradigm parameters, missing a more inclusive orientation and enfoldment of leadership in complex adaptive systems, and they lament that we still lack a single definition and unifying theory of leadership.

2.5.2 Proliferation of Constructs and Construct Redundancy

There is also a proliferation of new constructs in the leadership domain (Banks et al., 2018), and authors are calling for the pruning of constructs at this time. Banks et al. (2018) propose that construct redundancy stems from both theoretical and methodological limitations in research and urge researchers to consider how those constructs fit into the existing nomological network each time a new leadership construct is introduced to the field or is further refined.

2.5.3 Continued Use of Outdated Theories

Another key criticism of current leadership theories is that, despite the evolution of leadership and organisations, scholars and practitioners still seem to prefer to focus on standardized, predictable, and observable approaches like competence, traits and behaviours, rather than on the more difficult, nebulous factors of mindset, ethics and adult development.

Uhl-Bien et al. (2007) write that the inability to move beyond formal leaders and control inherent in traditional bureaucratic mindsets limits the applicability of mainstream leadership theories for the knowledge era and that is a contradiction between the needs of the knowledge era and the reality of centralized power that current leadership theory has not yet addressed. Oversimplified and fixed models of leadership also do not acknowledge the inherent complexity of human behaviour and the context within which this behaviour occurs (Singh, 2014). Complexity of human behaviour is itself a construct, developmentally contingent on a person's capacity to operationalize it. Those working with leadership have to themselves have the abstract complexity to reason and make sense at a more complex level.

There are several limitations in the narrow behaviour-based and style leadership approaches. The greatest of these is the fact that the behaviours learnt are often not applied in the workplace. As habits return, organisational contexts counter the new behaviours and deliberate, and ongoing practice is not reinforced. This is further complicated because behaviour that works in one situation may also not be universal enough to work in another. It is simply too one-dimensional and discards the importance of mindsets and adult development (Flores, 2013). Some of the most prolific researchers such as Bandura have indeed evolved in their views from neo-behaviourism to social constructivism (Simon, 2001).

Even the more recent theories are under scrutiny. Burns (1978) argued that transactional leadership practices lead followers to short-term relationships of exchange with the leader. These relationships tend toward shallow, temporary exchanges of gratification and often create resentments between the participants. A number of scholars also criticize transactional leadership theory because it utilizes a one-size-fits-all universal approach to leadership theory construction that disregards situational and contextual factors and related organisational challenges (Beyer, 1999; Yukl, 1999; 2011; Yukl and Mahsud, 2010).

Yukl (1999; 2011) took transformational leadership to task and noted that the underlying

mechanism of leader influence at work in transformational leadership was unclear and that little empirical work existed examining the effect of transformational leadership on work groups, teams, or organizations. He also suggested that the theory lacked sufficient identification of the impact of situational and context variables on leadership effectiveness. Oc (2018) observes:

> transformational leadership theory began without paying much attention to contextual contingencies, and only the most recent formulations of the theory include several contextual factors in an effort to provide a more complete understanding of the relationship between transformational leadership and performance. (p. 218)

In summary, Jakubik and Berazhny (2017) comment that "The old ways of leading people will not work in the creative economy where the competitive advantage of organisations is founded on learning, creativity, and innovation" (p. 471) and Tshabangu (2015) argues that new trends in the business environment require new paradigms of leadership. Furthermore, Hernez-Broome and Hughes (2004) state that "the dual challenges of understanding the nature of LD and implementing effective leadership practices will likely be greater than ever before" (p. 8) as a result of these new challenges.

2.6 Leadership in the FoW

As early as 1969 authors such as Hollander and Julian wrote that the construct of leadership is highly contextualised among leaders, followers and situations. Smircich and Morgan (1982) argued that leadership is a process of reality construction that takes place within a specific context. As the context changes, to be effective leadership also has to change and be embedded in its context (Osborn and Marion, 2009, Lord and Dinh, 2014)). How much has leadership been considered in context?

Porter and McLaughlin (2006) reviewed 21 major journals from 1990 to 2005 to determine the extent to which attention to the organisational context was a factor in

leadership behaviour and effectiveness: 373 articles qualified. Oc (2018) observed: "Presently, contextual leadership is one of the most trending topics in leadership research" (p. 218). Oc conducted a systematic review of how contextual factors shape leadership and its outcomes and found that, in the main, empirical research provided evidence for the effects of contextual factors on leadership. Oc found important gaps in the literature, namely that there is a nuance to how different contextual factors interact with each other and this effects leadership effectiveness.

A helpful way to make further sense of the leadership theories in the FoW is the work of Kelly (2018) who describes phases to characterize leadership for each Industrial Revolution (IR). For the first IR, charismatic leadership was related to how leaders act and mobilize an organization through actions and personal characteristics. The second IR was strongly shaped by scientific management, in which leaders assume a top-down style, and they could be characterized as a directive leadership. For the third IR, leadership was characterized by relational leadership, considering the theories of transformational leadership to stimulate the autonomy of followers for new ideas, collaboration among them. The third IR was also characterized by transactional leadership more conducted through and recognized by the achievements of followers' goals. The fourth IR requires both existing characteristics and new required characteristics from leadership. It needs more than a transformational leadership. It needs also a more specific focus on learning and innovation.

Leading in complex and disruptive times needs complex leadership. Leadership in the FoW therefore requires different mindsets and practices including collaboration, critical and systems thinking, adaptivity and global perspectives. (Torrez and Rocco, 2015). Basl (2017) and Kovalenko and Kovalenko (2019) argue that a lack of leadership skills in this new context can hinder the execution of the latest technologies. Leaders can no longer afford to use linear and individual thinking in solving complex problems. Interdependency, creativity

and complexity lead to more shared leadership approaches and further empowerment at all levels (Pearce, 2004). Yammarino, Salas, Serban, Shirreffs and Shuffler (2012) call out the need for shared leadership in an increasingly complex environment to navigate the challenges that emerge.

Santana and Cobo (2020) found four FoW themes in their research namely technological, social, political and economic each with significant impact on how leaders lead. In the context of the FoW and ongoing disruption, leaders need to be able to work across boundaries to bring together disparate and diverse sets of people, processes, and technologies and reconfigure them in real time to increase the likelihood of organization survival – being responsive, resilient and agile.

Martin and Ernst (2005) used exploratory, multi-method research of 157 practising managers to reveal the patterns that exist between societal context, organisations and the changing nature of leadership. Their results showed a shift in the practice from more traditional, individual approaches to more innovative and collaborative approaches. The extent of this movement was found to be far more striking in the non-US data.

When there is a crisis or significant complexity the environment, leadership occurs in changes significantly and therefore the cognitive processes, mental maps and strategies and actions leaders have to take to resolve it (Combe and Carrington, 2015; Mumfort et al., 2007; Osborn et al., 2002).

Probert and Turnbull James (2011) comment:

Initially, familiar leadership practices may be the default position that enables the organization to deal with challenging events. However, over a longer period, these old leadership patterns, which may even have contributed to the crisis, and may be unsuitable for the future of the organization, require review. (p. 146)

Several authors question whether we need new leadership paradigms due to COVID 19

(Claus, 2021; Forester and McGibbon, 2020). COVID 19 both accelerated Industry 4.0 and creates significant disruption in work and place of work.

Groothof (2007) asked whether existing leadership models were still relevant in the 21st century work environment and she evaluated the demands of the 21st century context on leaders. She came to the conclusion that the espoused environmental context and leadership models reciprocally impacted each other. In terms of what the environment demanded of leaders in the 21st century, she found that her findings were best explained and understood in terms of a combination of social constructionist and complexity or chaos theoretical perspectives.

Guzman et al. (2020) conducted a literature review about leadership and Industry 4.0 which led to the findings of 10 leadership characteristics in four leadership skill groups: cognitive skills, interpersonal skills, business skills and strategic skills (using Mumford's groupings); they describe what they call leadership 4.0 as "cross-hierarchical, team-oriented, and with a cooperative approach, with a strong innovation focus" (p. 546).

In summary, the FoW context is overwhelming leaders as they grapple collectively with the technological disruptions, hybrid work practices, fast changing environment and the shift in the employer-employee power dynamic.

2.7 Emerging Leadership Theory

Leadership theory has evolved alongside the complexity of the environment with theories like complexity and systems leadership, crisis leadership, the developmental approach to leadership, digital leadership, virtual and hybrid leadership and human leadership gaining in importance.

2.7.1 Complexity and Systems Leadership

Uhl-Bien et al. (2007) comment that leadership models of the last century were products of bureaucratic paradigms and are not well-suited for the knowledge-based economy. They

suggest, instead, the use of a different paradigm for leadership – that of complexity science – one that frames leadership as "a complex interactive dynamic from which adaptive outcomes (e.g., learning, innovation, and adaptability) emerge" (p. 298). They highlight the importance of context in their complexity leadership approach:

> Context in complex adaptive systems is not an antecedent, mediator, or moderator variable; rather, it is the ambiance that spawns a given system's dynamic persona— in the case of complex system personae, it refers to the nature of interactions and interdependencies among agents (people, ideas, etc.), hierarchical divisions, organizations, and environments. CAS and leadership are socially constructed in and from this context—a context in which patterns over time must be considered and where history matters. (p. 299)

Complexity leadership literature was reviewed by Rosenhead, Franco, Grint and Friedland (2019) to identify the assumptions and research strategies employed across the complexity leadership literature field. They used a base set of 135 papers for their study. They then went on to discuss the top 10 most-cited papers in complexity leadership. Uhl-Bien and Marion are the most cited in this field with their Complexity Leadership Theory, which they describe as adaptive leadership, administrative leadership and enabling leadership. The Cynefin framework of Kurtz and Snowden was also found to be a helpful framework, providing heuristics for decision making in complexity. Other theorists like Schneider and Somers wrote about leadership as a complex adaptive system, while Drath et al. provided a leadership ontology for complexity – direction, alignment and commitment. Finally two more categories emerged: emergence and storytelling. Emergence and self-organisation were expressed as ideas by Uhl-Bien and Arena and Plowman et al. All these authors agreed on the following underpinning orientations:

   a) rejection of individual agency;

b) learning;

c) bottom-up innovation;

d) dissonant dialogue; and the

White and Shullman (2010) found acceptance of uncertainty to be an indicator of effective leadership: "Those who can keep the experience of uncertainty to a tolerable level can keep more options open and embrace ambiguity as an opportunity to bring people and options together to learn and adapt as they collectively find their way" (p. 94).

Oosthuizen (2017) states that:

The rapid technological advancement that is increasingly transforming the way we work, live, and communicate, fundamentally altering our lives day by day appears to contrast contemporary leadership. Thus, leadership in the wake of technology's exponential advancement should be of particular importance to scholars and practitioners. (p. 4)

Indeed, Tourish (2019) asks whether complexity leadership theory is complex enough to meet today's challenges: he asserts that "how leadership emerges and the dynamics of the relational interactions among organizational agents are issues that remain largely unexplained" and asks, "is it complexity leadership or leaders managing complexity?" (p.223). Tourish proposes that if we do live in a complex world, it makes more sense that leaders and followers emerge, and their identities are constructed and deconstructed all the time and therefore leadership is "a process of complex becoming" (p. 227).

Adaptive and integral leadership emerged alongside complexity leadership (Heifetz and Laurie 1997; Heifetz, 2009; Yukl and Mahsud, 2010). Heifetz and Laurie identify six capabilities for adaptive leadership, which include the capability for creating organisational learning processes, regulating the systemic distress inherent in adaptive work, and keeping above the detail so as to see the patterns of problems that the organisation experiences.

In order to deal with all the challenges just mentioned, a systems approach to leadership has been widely proposed by authors such as Coffey (2010) to deal more effectively with complex and uncertain environments: a "Systems Approach to Leadership (SAL) is about developing organisations to deliver better outcomes for all stakeholders (i.e. customers, employees, shareholders, suppliers and the broader community" (Coffey, 2010, p. 5). This focuses on what actually happens in organisations to generate and sustain performance and aligns well with the complexity of achieving goals in fast-changing emergent and disruptive contexts. It describes leaders as collective systems builders. Acton et al. (2019) agree and describe leadership as emergent, dynamic, multi-level and process-oriented. They developed an integrative framework of leadership emergence at an individual, relational and collective level. As organisations move towards a FoW characterised by shared leadership and hybrid work as well as fluid cross-functional teams and structures, power shifts and leadership becomes more dynamic. (Ashford and Sitkin, 2019; DeRue and Ashford, 2010).

From a systematic leadership review, the most distinguished leadership characteristic for digital transformation emerges as that of an innovative visionary combined with networking intelligence, digital intelligence, complexity mastery, business intelligence and ambidexterity. Socially, the successful digital leader is depicted as an open, employee-orientated diversity champion, coach, motivator, delegator and role model. Above all, leaders have to be self-aware, ethical and adaptable, open to learning from failure and decisive and courageous. Zupancic et al. (2016) comment that leaders need "an acute understanding of how 'digital' can be a unifying set of methodologies and technologies to bring skills and knowledge together" (p. 4).

Complexity and systems leadership imply the need for leaders to be ambidextrous. The ability to achieve ambidexterity is an important requisite for leading in the context of the FoW and disruption. The definition of ambidextrous leadership is "attempts to achieve an

improved corporate outcome on the macro level through leadership behavior on the micro-level" (Mueller et al., 2020, p. 37); "decisions on the macro level not only affect the formulation of an ambidexterity strategy, but also the determination how to realize an ambidextrous organization" (p. 39) and at the micro-level "ambidexterity is about developing the individual competencies that are necessary for organizations to compete successfully while carrying out complex sets of decisions and routines" (p. 40).

2.7.2 Crisis Leadership

If crisis leadership research is considered, leaders are required more than ever to process ambiguous and complex information, act on it and influence those inside and outside of their own organisation. (Bundy, Pfarrer, Short and Coombs, 2017). Forster, Patlas and Lexa (2020) urge leaders to anticipate and plan for significant disruptions, to distribute leadership to empowered teams, to create and maintain transparency and to show emotional stability and calm. Keen, Gilkey and Baker (2020) draw on lessons from crisis leadership to provide guiding principles to leaders. This starts with leaders defining their current situation and reality internally and externally. They then need to articulate a clear vision, action and plan, and use continuing rapid and adaptive decision making and communication to lead people through the crisis. Most importantly, they need to prevent burnout and manage their and their peoples' energy, as well as use ongoing learning to create new skills to lead better in the future.

2.7.3 A Developmental Approach to Leadership

Reams (2005) examines the relationship of consciousness to leadership and proposes that integral theory, grounded in the work of Ken Wilber, assists with the contextualisation and framing of leadership as whole and is interconnected. He identifies stages of development as a helpful lens for understanding integral leadership: "The process of development is one of a fusion or identification with one level, a differentiation from or transcendence of that level,

and an integration and inclusion of the new level" (p. 121).

2.7.4 Digital Leadership

Avolio et al. (2014) further argue that leaders and technology should co-evolve, with leadership being a corporate social structure created by technology. Leadership in the digital age is part of Leadership 4.0 (Nally, 2016). Prince (2017) argues that Leaders in Industry 4.0 need to be digital leaders and digital transformers. She uses transformational, transactional and authentic leadership matrices to propose a digital leadership framework. Klein (2020) finds that digital leaders "are expected to act rapidly and flexible in networked and distributed organization structures on the one hand and on the other hand they have to manage the digital transformation of the organization" (p. 883).

DasGupta's (2011) review of the literature on e-leadership highlighted more than 20 different theoretical contributions to the discussion of this topic in the past 10 years. Avolio, Sosik, Kahai and Baker (2013) defined e-leadership as "a social influence process embedded in both proximal and distal contexts mediated by AIT that can produce a change in attitudes, feelings, thinking, behavior, and performance" (p. 107).

Oberer and Erkollar (2018) examined leadership styles for Industry 4.0 digital leaders and defined digital leadership as "fast, cross-hierarchical, team-oriented and cooperative with a focus on innovation using design thinking" (p. 6). They propose that successful digital leaders use a democratic, employee-centered style of leadership; they should combine a high concern for people with a high concern with innovation and technology. In terms of Industry 4.0 leadership skills, McGuinness (2020) found four skills namely positive accountability, foresight, a people-centric approach and the ability to be decisive.

2.7.5 Virtual and Hybrid Leadership

Huang, Kahai and Jestice (2010) describe the leadership challenges that arise as a result of virtual work and the need to lead individuals and teams across the organisation eco system

and in different locations, cultures and time zones. The need to understand virtual leadership as well leverage technology for communication and coordination has become critical. Even before the onset of COVID-19, remote leadership models were being investigated. Kelley and Kelloway (2012) tested a model of remote leadership, challenging the notion that most managers led individual they had frequent face-to-face interaction with. They identified the contextual elements of perceptions of control, prior knowledge of the leader, unplanned communication and regularly scheduled communication with the leader. They found that leading proximally differed significantly from being led remotely and that differences resided in the context. One of the biggest differences was in the level of unplanned communication, which occurred more frequently in proximity. This impacted the perceptions of transformational leadership (Schmidt, 2020). Existing empirical work looking at virtual leadership has found traditional leadership factors often do not have the same impact (Goh and Wasko, 2012; Gajendran and Johi, 2012; Hambley, O'Neill and Klein, 2007; Hoch and Kozlowski, 2012; Purvanova and Bono, 2009).

The increased demand for better and different leadership at all levels of organizations stems from a variety of demands in the FoW (Bernin, 2002), typically characterised by VUCA (Volatility, Uncertainty, Complexity, Ambiguity) (Stiehm and Townsend, 2002). Hazy and Uhl-Bien (2012) write that our complex environment brings substantial new challenges for leaders in uncertain environments over which they have little control. Vurdelja (2011) adds that linear thinking based on habits and sequential procedures is insufficient when responding to ambiguous and unpredictable challenges and problems, and Larson and Rowland (2001) find that individuals with the ability to generate greater and higher cognitive complexity perceive more differences in the context and are better able to assimilate and deal with polarities.

2.7.6 Human Leadership

Traditionally, purpose is seen as being developed and communicated centrally by the leader, but purpose-driven leaders see shared purpose and living examples as the aim. Cardona et al. (2019) state that purpose driven leadership is "based on three undertakings: first, the discovery of personal purpose; second, helping others find their personal purpose; and finally, connecting personal to organizational purpose" (p. 63).

COVID-19 has further challenged how we see leadership. Bingawaho (2020) and Mueller, Renzl and Will (2020), write about the need for compassionate, courageous, distributed and evidence-based leadership to defeat COVID-19.

Moral and transformative leadership, with its emphasis on ethics and justice, has re-emerged in response to the many public moral failures and plunging trust in leadership. Shields (2011) comments that for leadership to be truly transformative it needs to be linked to equity, inclusion and social justice. Recent anti-racism activism has seen leaders take much stronger public moral stands and social action than ever before. Shields defines transformative leadership as acknowledging power and privilege, articulating individual and collective purpose, deconstructing socio-cultural knowledge frameworks that generate inequity, balancing critique and promise, effecting equitable change, working towards transformation and demonstrating moral courage and activism.

In fact, by 2020, 46% of employees will be Millennials (Lynch, 2008). Bala and Mora (2011) found that servant leadership provided practices and meaning among members of the Millennial generation.

2.8 Towards Future-fit Integrative Models of Leadership Theory

As early as 1990, King, Van Seters and Field proposed the next era of leadership as more complex and integrated than any of the eras before, calling it the Integrative Era. They believed new theories would be added at the same time that previous theories would be integrated, and this has certainly been the case. These ideas received further attention through

the work of Avolio (2007) and Lord et al. (2001), who called for more integrative strategies for leadership theory-building.

According to Lord, Day, Zaccaro, Avolio and Eagly (2017), leadership can benefit from an interdisciplinary lens that favours co-construction of leadership in social settings and takes account of relationship and system dynamics. Raelin (2020) urges going even further and sees leadership as a practice – "a collective practical accomplishment that is produced in a particular social setting" (p. 481). This focuses on the doing of leadership. Salicru (2020) asserts that LD should be a collective activity which entails developing and improving relationships and networks. Salicru (2020) concurs with his Five C's model of leadership as a practice (concurrent leadership, collaborative leadership, collective leadership, compassionate leadership, and co-creative leadership).

Veldsman (2017) observes:

The need for re-imaging leadership become even more critical if viewed against the backdrop of the deepening, widening crisis around leadership worldwide. Globally people increasingly are angry at, frustrated with, sceptical of, alienated from, disillusioned with, mistrusting of, loathing of, raging and revolting against current leaders and leadership, and the organisations and institutions they represent. The imperative is to grow re-imagined future-fit leadership, able to find and realise desired futures. (p. 2)

In summary, leadership today requires an even more integrated focus on developing leadership expertise (Day, 2009), new perspectives on the role of leader identity (Day and Harrison, 2007), and the development of adaptive leadership capacity (DeRue and Wellman, 2009). Allio (2005) and McKenzie and Aitken (2012) define 12 leadership agility practices relevant to knowledge economies and distributed leadership. These include the skill to handle tensions caused by apparently conflicting requirements, sense making, creating a learning

culture, dialogue, change leadership, and emotional intelligence. Sobral et al. (2020) observe that the unprecedented turmoil of COVID-19 has increased the need for leadership sense making. They describe sense making as "a process of social construction that takes place when individuals are faced with unforeseen events or confusing and discrepant pieces of information" (p. 760). Dirani et al. (2020) write that the COVID-19 pandemic is a test of leadership across the world. Research on crisis leadership emphasizes that "crisis leadership demands an integration of skills, abilities, and traits that allow a leader to plan for, respond to, and learn from crisis events while under public scrutiny" (Wooten and James, 2008, p. 2).

2.9 Leadership Development

Carroll and Levy (2010) categorised LD according to functionalist, constructivist, and social constructionist approaches. Using different frames leads to significant differences in LD criteria and models. The frame being used helps us understand the underlying assumptions and patterns for LD in the FoW.

2.9.1 Functionalist Approaches

Functionalist approaches focus upon the development of individual leaders' repertoires of techniques and tools in order to increase their effectivity (Lord and Hall, 2005). Constructivist approaches regard LD as facilitating an identity transition (Kempster, 2009). Social constructionist approaches focus on the role of discourse, understanding LD as interaction with and within different discourses (Carroll and Levy, 2010; Fairhurst and Putnam 2004; Thomas and Linstead, 2002). Mabey's (2013) analysis of the literature on LD in organisations found that a functionalist perspective dominates, with 82% of the studies showing a pre-occupation "with enhancing the qualities of individual leaders, as if they are personally capable of turning organizations around" (p. 6).

2.9.2 Constructivist Approaches

More recently, the frame of constructivist approaches have been proposed as a better fit for the FoW as knowledge and competencies are becoming more transient due to the rapidity of change in the FoW (Hall and Rowland, 2016). Constructivist approaches recognise that behavioural acquisition is not enough for leadership and its development and adopt a psychological perspective that sees development as cognitive and evolutionary. It has gained ground since the mid-2000s (Allen, 2007; Cunliffe, 2009; DeRue, Nahrgang, Hollenbeck and Workman, 2012; Kelly, 2018). Constructivist approaches are influenced by adult development theory. They assume that individuals are continuously growing and changing as they progress to higher levels of complexity. Constructivism recognizes that LD occurs as people actively construct, reflect on, and make sense of themselves and their experiences (Kayes, 2002). Constructivism has led to more reflective learning practices and is more learner-centred, blended and experiential.

2.10 Criticisms of Current and Past LD Theories

Baker (2014), Collins and Holton (2004), Haines (2009), Mabey (2013), Nicholson (2009), Petrie (2014) and Vince and Pedler (2018) all write that LD is falling behind societal trends and is falling short of its responsibility to prepare leaders for complex environments. LD is different from the broader field of leadership theory and research and goes far beyond choosing a particular leadership theory and training people in behaviours related to that theory. Hartley and Hinksman (2003) conducted a systematic review of the LD literature between 1997 and 2003 for the NHS. They found evidence that the approach to LD was influenced by the model of leadership which underlay the development work and that many development programs had no clear leadership frame. Day (2011) observed: "there is conceptual confusion regarding distinctions between leader and LD, as well as disconnection between the practice of LD and its scientific foundation" (p. 581).

Often old paradigms and pedagogies are to blame. Osborn et al. (2002) argue that traditional leadership approaches usually start by discussing individuals and what they do (e.g., as if they almost exclusively operated in conventional organizations). Since these theories were developed, leadership research has come a long way. Mumford (2011) comments:

Traditionally, leadership studies simply reflected the fad of the day. What has become clear is that the day of the global theory for leader success is over. Rather, over the last ten years the field has begun to develop as a distinct scientific discipline characterized by progressive research and well defined boundary conditions applying to the phenomena being examined. (p. 6)

Wiley (2019) agrees:

LD sciences have been met with a number of challenges due to a schism between organizational research and practice, the wicked nature of leadership development, and inconsistencies due to nascent nature of the discipline. (p. 26)

Veldsman (2017) comments:

Currently, the spontaneous kneejerk response to address the growing need for better and different leadership, as well as to deal with the deepening, widening leadership crisis, is to embark on a frenetic search for THE silver bullet to resolve the crisis. This response manifests a future-unfit Vantage Point in viewing leadership from a short term, individualistic, simplistic, narrow, fragmented and shallow perspective (p. 2)

Earlier attempts at guidelines for LD were linear and timebound and not reflective of the social constructivist and evolving nature of LD in complex environments . Cacioppe (1998) proposed an integrated model and approach for the development of effective LD programs. His model is made up of seven stages: 1) Articulate strategic imperatives, 2) Set objectives for development, 3) Identify appropriate methods, 4) Select providers and design specific

learning program, 5) Evaluate program delivery and effectiveness, 6) Integrate with management and human resource systems, and 7) Conduct an overall assessment of the value of the program, objectives and philosophy.

The most common practices of LD have included 360-degree feedback, coaching and mentoring either from top executives and line managers of the firm or from external consultants, networking, action learning, specific job assignments, corporate case studies, computer simulations, experiential learning and, of course, classroom-type leadership training with in-house or external trainers (Keys, 1994; McCall, 1998; Cacioppe, 1998; Day, 2001).

As set out before, typical programs teach leadership theory, concepts and principles; they promote leadership literacy, but they do not increase leadership competence. As a result, fundamental behavioural change is rare, and participants usually regress to old patterns within weeks. (Allio, 2005; Ready and Conger, 2005; Russon and Reinelt, 2004). DeRue and Myers (2014) argue that, despite the fact that organizations are increasing their investments in LD, there is an emerging consensus that the supply of leadership talent is insufficient to meet the leadership needs of modern organisations. They propose three further reasons why LD research has not yielded the insights needed to sufficiently inform and address this leadership crisis. These are: 1) the predominant focus on individual leader development; 2) the narrow focus on knowledge, skills and abilities; and 3) the lack of a coherent and integrative framework for organizing the existing literature on LD.

2.10.1 Overreliance on Individual Trait- and Behaviour-based Approaches

James and Burgoyne (2011) assert that leadership theory should inform LD practice. In reality, however, many LD programs lack a clearly articulated perspective on leadership beyond a competence, behaviour and values approach.(Salicru, 2020). Professional LD that overly emphasizes pre-defined skills or competencies disregards and fails to appreciate the

ontological dimension of leaders' professional learning ("learning in becoming" process) and leadership practice ("doing as" process) to be professional leaders (Dall'Alba, 2009). Trait theory fails to take situations into account such that different situations may require different behaviours from leaders, such as when dealing with tame, wicked, and critical problems (Grint, 2008).

If personality is conceptualized in terms of traits that summarize relatively enduring dispositional tendencies (House, Shane and Herold, 1996), then its relevance for studying development (i.e., change) is questionable. Probert and Turnbull James (2011) suggest that one of the main causes for this crisis in LD is the dominance of competency leadership frameworks, which advance "a modern version of the great person theory" (Hollenbeck et al., 2006, p. 408), disregard the "subtle, moral, emotional and relational aspects of leadership" (Bolden and Gosling, 2006, p. 158), and "only articulate that which is objective, measurable, technical and tangible" (Carroll, Levy and Richmond 2008, p. 365).

Lord and Hall (2005) write that the lack of research on how leaders actually develop is due to the fact that most LD approaches have addressed "surface structure skills" as opposed to "the deeper, principled aspects of leadership that may be especially important for understanding the long-term development of effective leaders" (p. 592). Program designers continue to draw on a pre-set pedagogy with little concern for individual and contextual differences. Overly didactic approaches may limit effectiveness of LD.

Grint (2007) calls this approach techne or know-how, through which leadership training is used to fix problems of inadequacy and deficiency in the leader's technical skill sets: the leader's toolbox is topped up. Another popular approach in leadership research that is likewise limited in its developmental usefulness is the behavioural approach (Day et al., 2014).

Day (2011) supports this with the finding that training approaches based on individual

level skill ignore almost 50 years of research showing leadership to be a complex interaction between the designated leader and the social and organisational environment.

2.10.2 Haphazard Approaches and Lack of an Integrative Framework

One of the other biggest challenges facing organizations is reversing a tendency that allows LD to become a "haphazard process" (Conger, 1993, p. 46), which results from embedding development in the ongoing work of an organization without sufficient notice to intentionality, accountability, and evaluation. Campbell, Dardis and Campbell (2003) argue that the current diversity of perspectives on LD is misleading because it may encourage practitioners and researchers to suggest that LD constitutes any understanding that develops individual(s), and that all development activities are equally effective.

More recently, Vogel et al. (2020) provide an integrative bibliometric review of the LD field, filling an existing gap in reviews to date. They conclude in their review of LD that the field remains very fragmented and in need of a comprehensive, holistic review. They analysed the citation network of 100 of the most important LD articles and categorized them into three clusters. In cluster 1 the focus was on leadership styles, seminal and theoretical work, particularly transformational and transactional leadership, charismatic leadership and authentic LD. The focus on development was found to be low, with 70% of the studies focusing on leadership more broadly. Cluster 2 contained older citations, with a third of the studies published between 1982 and 1990 and two-thirds before 2000. While the theorists informed LD, i.e., in learning theory and goal setting, there was a strong non-leadership focus in this cluster. The dominant focus of this cluster was on learning via experience. Cluster 3 focused mainly on basic rather than applied research. It included systems perspectives, complexity leadership, relational leadership, level of leadership and boundary-spanning work from Day (2000).

Hotho and Dowling (2010) found that participant interaction with LD programs varied

depending on individual and/or contextual factors. Other research also found significant differences in the context in which leaders lead, which poses challenges for current one-size-fits-all, programmatic approaches (Bligh, 2006; Gibson, 2016; Osborn et al., 2002; Storey, 2004).

There is still a long way to go to develop future-fit theories and models of design, development and evaluation. Fernandez and Perry (2016) addressed the lack of models and frameworks available for developmental methods and confirmed a lack of empirical evidence to substantiate the success of LD programs, while Quatro (2007) had earlier called for a "reform of leadership development and management education" (p. 428) in favour of a new, holistic approach to LD. This was confirmed by McGonagill and Pruyn (2010), who emphasised that the overall LD program design and integration was more significant than individual elements. O'Connell (2014) argued that leader development, even more than leadership, lacked definition, theory, agreed-upon constructs and effective processes. This gap in research concerning LD was surprising, considering the scale of financial and organisational resources devoted to LD initiatives (Berkovich, 2014).

2.10.3 Lack of Measurement of Impact

Measuring impact is also rare, with only a few researchers such as Avolio et al. (2010), Gentry and Martineau (2010), Richard et al. (2014) attempting to measure the true impact of LD. Research backs up these views. Russon and Reinelt (2004) evaluated the results of 55 LD programs and found that most focused on individual outcomes, few had an explicit program theory, and almost none had the resources to conduct longitudinal evaluations. Day (2011) argues that, over time, some leaders developed "the erroneous belief that leadership develops mainly in LD programs" (p. 37). He argued for a more scientific approach to developing leaders and leadership. Day et al. (2014) reviewed the theoretical and empirical literature on leader and LD over 25 years, primarily focused on research published in *The*

Leadership Quarterly. They argue that by 2014 LD had only really achieved 10 to 15 years of more scientific and evidence-based theory building and research.

Ready and Conger (2005) challenge the philosophy that LD cannot be measured.

Leadership researchers and practitioners have not focused enough on the impact, value and relevance of their interventions or on their own accreditation and knowledge renewal. LD designers continue to evaluate LD using perceptions of success and reaction criteria at the end of their programmatic interventions and very few use results criteria throughout the learning journey to adapt the programs for more impact (Collins, 2002; Riggio, 2008).

2.11 LD in the FoW

Fairhurst and Sarr (1996) argued that LD is affected by context. Watkins et al. (2017) explain the challenge facing leadership educators well: "Leadership educators are challenged with developing leaders who can sense environmental cues, adapt to rapidly changing contexts, and thrive in uncertainty while adhering to their values systems" (p.148). They propose that the understanding of systems behaviour and complexity concepts are essential aspects of LD for the challenging contexts leaders face. LD should stimulate real-time learning that maximises engagement, promotes agility and leads to horizontal and vertical growth.

These assumptions are based on evidence from several scholars. Avolio and Gardner (2005) write that leadership interactions occur in a dynamic, emerging context, and urge researchers to incorporate the context into their predictions of LD and effectiveness. LD therefore starts with the leadership concept which must represent leadership requirements for the future it desires (James and Burgoyne 2001; Probert and Turnbull James, 2011). State-of-the-art LD is occurring in the context of ongoing work initiatives that are tied to strategic business imperatives (Dotlich and Noel, 1998). Day (2011) says that "leadership is an emergent property of effective systems design. LD from this perspective consists of using

social (i.e., relational) systems to help build commitments among members of a community of practice " (p. 583), and "As such, it is a more complex endeavor than one concerned solely with individual leader development" (p. 586).

Turner et al. (2018) observe:

Leaders operating in today's complex environment need to be exposed to LD programs that provide them with the tools and knowledge to adapt to environmental variation… Current LD programs need to be realigned to better meet the needs of innovation, complex problems and dynamic work environments while providing a culture that questions strategy and plans to better meet the demands of operating in dynamic work environments. (p. 539)

Lagowska, Sobral and Furtado (2020) argue that crisis is an opportunity for LD and emergence as experience plays a central role in the LD process. Living through a highly disruptive event is likely to enhance a leader's self-efficacy and confidence in dealing with crises and increase their motivation to lead in general (Chan and Drasgow, 2001). Understanding the changing context of leaders and how that affects LD guides the models and approaches deployed.

LD needs to move beyond the view of leadership as individual hero leaders that are inherently good and evolve to include realistic leadership and organisational systems dynamics (Dugan and Turman, 2018; Ennova, 2015; Karp, 2020). Critical approaches help learners consider ethical dilemmas leaders face in more depth (Brown and Trevino, 2006; Ciulla, 2004).

Amagoh (2009) writes that the goal of LD should be to increase leadership effectiveness in guiding organisations through periods of uncertainty and change. Claus (2021) writes that: "Leadership development is a process of growth that uses defining moments like the pandemic as an opportunity for reinvention" (p. 166)

2.12 Future Themes for LD Model Evolution

To further evolve LD in the FoW, a the embedding of LD in context, a complexity vantage point, co-creation and updated pedagogical approaches would benefit the design and delivery of future-fit LD. Owen (2015) observes that there is an emerging consensus that leadership is interdisciplinary in nature and that leadership educators should use integrative learning and multiple disciplines and approaches in LD. Connaughton et al. (2003) describe LD as a systematic and multidisciplinary enterprise.

2.12.1 A Complexity Vantage Point

Boyatzis (2008) and Veldsman (2017) argue that sustainable LD comes from using a holistic and complexity perspective that incorporates emotional and neuroendocrine aspects of learning and behavioural change. The challenge is that "the leadership development process often appears nonlinear and discontinuous, being experienced as a set of discoveries. They are emergent phenomena" (Boyatzis, 2008, p. 299). It is iterative in nature. This is in contrast to LD research that often uses statistical procedures that assume continuity.

Clarke (2013) puts forward a model for Complexity LD. The model posits two levels of analysis that together comprise the targets for development. These are (1) system level and (2) individual level. At a system level, the targets are structure, culture and processes that together form the social system, i.e., network conditions, shared leadership and organisational learning. At the individual level, the focus is on individual behaviours required from formal and informal leaders within the social system.

2.12.2 Co-created Design

One critical change to the way LD is conceived is the use of the design-thinking approach to LD (Nuzzaci, 2010). Ney and Meinel (2019) define design thinking as:

A methodology or approach to designing that should help you be more consistently innovative. It involves methods that enable empathy with people, it focuses on people.

It is a collaborative methodology that involves iterative prototyping. It involves a series of divergent and convergent phases. It combines analytical and creative thinking approaches. It involves a toolkit of methods that can be applied to different styles of problems by different types of people. (p. 4)

Damiani et al. (2017) urge leadership practitioners to include voices of learners collaboratively in the preparation of development design to create more inclusive and purposeful outcomes. A systems and design-thinking approach to development can have a transformational effect on individuals and organisations by involving participants in the design of the program. It creates a paradigm shift that helps people make sense of their challenges and what needs to be developed (ideal design). It creates a shared mental map for participants. "Idealized design is a creative activity that makes possible involvement of all people who have a stake in the system, including both experts and nonexperts" (p. 25). It is based on the premise of interactive planning and uses three principles: it is participative, continuous and holistic. This is supported by Edwards and Turnbull James (2013) who write that LD should be social as well as "contextual, cultural, and dispersed" (p. 49).

2.12.3 Informed by Adult Development

There has been significant research into how humans change and develop as adults, which is of fundamental importance to LD and has been largely ignored in most accounts addressing the evolution of leadership. Three decades ago, Bartunek, Gordon and Weathersby (1983), in the *Academy of Management Review*, advocated the use of adult developmental stage theories for the ability to see and understand organisations from multiple perspectives as a prerequisite to working in domains of increased complexity. Reams (2014) has described the diverse streams of thought that have emerged in adult developmental work over the years, namely, ego and skills-based models. The ego theories originate from the work of Loevinger (1976) and have been developed further by Cook-Greuter (1985, 2004).

As a result of their efforts and those of numerous other scholars, the field of developmentalism/adult/vertical development theory has gained significance in leadership models and development.

Adult development theories are more holistic than functionalist competency and behaviour models because, when transformative change is the framework for leader development, theories of adult development and transformation inform the understanding of the development process, and disequilibrating or disorienting experiences and critical reflection on assumptions are central to the process (McCauley, 2008). McCauley et al. (2006) state that "because Constructive Developmental Theory deals with an aspect of leadership that may be taken as basic – the generation and development of meaning for individuals and social systems – Constructive Developmental Theory has the potential to act as an integrative framework in the field" (p. 650).

Allen and Wergin (2007) provide three reasons why adult development is important in LD namely that leaders are individually at different developmental levels when they start their development, they are influenced by past experiences and people and they need to understand how followers are motivated by their own developmental level and history. They suggest that a starting place for LD programs should be the assessment of participants' developmental levels. Avolio and Hannah (2008) also propose that LD can be accelerated by proposing that those developing leaders first assess and then build on the readiness of individual leaders for development.

Kegan and Lahey (2010) agree that the underlying 'operating system' used for effective LD has not been addressed in recent LD approaches. Kegan (1994) distinguishes between informational learning, which is new knowledge added to the current form of one's mind, and transformational learning, or learning that changes the very form of one's mind. When the form of the mind changes, the individual themselves become more complex and can therefore

deal with increased uncertainty and ambiguity, developing the capacity to create distance between the subject and object and gain insight and perspective to move forward with. Brennan (2017) further shows how the application of adult development or constructive development theory provides a meaningful lens through which authentic development of individual leaders can be better understood.

In terms of the skills theories of adult development, Dawson and Heikinnen (2009) identified clear within-level differences in leadership decision by making use of the Lectical Assessment System and, more specifically, the LDMA, the Lectical Decision Making Assessment, assessing perspective taking, argumentation and the decision-making process as well as core structures of cognitive complexity based on dynamic skill theory.

In addition, Mumford et al.(2007) write that leadership skills are often described as stratified by organizational level and as a complex of multiple categories – which they call a "strataplex." Stratified system theory or levels of work theory formulated by Jacobs and Jaques (1987) help us understand how the strataplex framework is based on increasing levels of cognitive and mental processing ability and quality of thinking, affected by the timeline of planning and decision making at different leadership levels.

Liu et al. (2020) state that LD is a process across the lifespan of the leader.

Developmental sequencing becomes critical. Developmental sequencing is "the pedagogical method of scaffolding learning opportunities to provide the appropriate amount of challenge that maximizes gains and minimizes losses" (Torrez and Rocco, 2015, p. 30). Proper developmental sequencing ultimately promotes positive growth along a particular developmental trajectory (Day et al., 2009).

2.12.4 Transformative Pedagogy and Social Construction

Pedagogy has to support LD effectively. Salicru (2020) and Reed and Anthony (1992) lament the over focus on LD techniques and the lack of appropriate pedagogical approaches

that can deliver ongoing, complex and transformative learning to help leaders co-construct new meaning and ways of seeing.

Mikkelsen and Jarche (2015) write that the best leaders are constant learners in the FoW and in ongoing disruption:

Reinvention and relevance in the 21st century…draw on our ability to adjust our way of thinking, learning, doing and being. Leaders must get comfortable with living in a state of continually becoming, a perpetual beta mode. Leaders that stay on top of society's changes do so by being receptive and able to learn. In a time where the half-life of any skill is about five years, leaders bear a responsibility to renew their perspective in order to secure the relevance of their organizations. (p. 3)

In terms of approaches to development, interdisciplinary, social constructivist, relational and blended approaches have been shown to be more effective than other methods. Furthermore, the signature pedagogies of leadership education, discussion and reflection have been and continue to be impacted by the highly connected, rapidly changing digital space (Jenkins and Endersby, 2019).

Kennedy et al. (2013) state that new ways of thinking about leadership as emergent, relational and collective need to shift paradigms of LD, moving from predominantly building skills to working with evolution of mindsets. Jeanes (2021) emphasises the use of growth mindset (an andragogical approach) as critical to effective adult learning. It involves adult learners being involved in the 'what', 'where', 'when' and 'why' of the learning. Mindsets therefore stand in contrast to the development of specific skills and competencies. Kelly (2018) and Siemens (2004) urge us to use learning theories in the FoW that are more concerned with the actual process of learning, not with the value of what is being learned. The purpose of adult learning should be on constructive, transformative learning that changes the learner's perspectives and understanding (Eades, 2001).

Transformative learning requires critical self-reflection– thinking-about-thinking, or metacognition – a skill that (ideally) develops along the way to adulthood. Wu and Crocco (2019) propose that the most significant learning experiences in adulthood involve critical self-reflection-assessing. In actuality, the experience of transformative learning typically coincides with a crisis, or what Mezirow calls a disorienting dilemma (Fleming, 2018). Allen (2006) argues that transformative learning fosters a critical change in an individual's meaning structures and, as a result, individuals develop new frames of reference; the learning is constructivist/developmental in nature.

Furthermore, learning should be draw on critical pedagogy leveraging the social construction of leadership in the reality of the organisational context, real ethical dilemmas, intercultural differences and leadership dynamics. As stated by Collinson and Tourish (2015), "by highlighting the considerable influence of contexts and cultures on leadership dynamics, critical courses challenge romanticised views of leaders and the essentialist assumptions that frequently underpin them."(p.21)

LD itself needs to focus less on content and methods and more on the context, dynamic process and conditions of learning. A social constructivist perspective proposes that leadership is a socially constructed phenomenon whose meaning "may vary considerably across time and across firms" (Osborn et al., 2002, p. 805). Hence, in this view, leadership "is embedded in time, in a place and in the collective minds of the observers" (p. 805), and therefore it is uniquely defined in each organisation.

Harris (2004), Schein (2004) and Spillane (2006) all call out the interrelationship between leadership and culture and the need to embed this in LD practice and research to ensure that that the mental maps and collective assumptions leaders hold in organisations have been duly considered (Hall and Lord 1995; Lord and Maher, 1993).

In line with the constructivist/social constructivist approach to LD, Eva et al. (2019a)

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write that a multi-perspective approach is needed for collective LD. They found that too many collective LD efforts remained focused on coaching and competency development. They urge, in addition to person-centred perspectives, the use of social network and social-relational perspectives to develop leadership in its true nature of dyadic, shared, relational, strategic, global and complex. They also urge the inclusion of socio-material and institutional perspectives. This means leadership is not just confined to relationships but includes places, spaces, technologies and managing organisational paradoxes.

Constructive and Transformative learning is very different to Functionalist approaches. Reams writes:

> The journey through these orders of structuring meaning making (and by implication how one perceives, interprets and acts in their role as a leader) utilizes critical reflection on deeply held frames of reference, or assumptions. This can be experienced as having rational as well as intuitive or emotional components. (2016, p. 70).

There is a group of researchers such as Liu et al. (2020) who urge the use of experience and deliberate practice as needed conditions for LD, as well as the use of a lifespan development perspective and the integration of those experiences in development. DeRue and Wellman (2009) argue that "[...] challenging experiences provide a platform for individuals to try new behaviors or reframe old ways of thinking and acting" (p. 860). Mumford et al. (2000) argue that "[...] assignments that present novel challenging problems and require working with others who have different perspectives may be valuable" (p. 90). Boak and Crabbe (2019) asked mature managers and professionals to rate the contribution of certain experiences to the development of their leadership capabilities and found that tackling a significant challenge emerged as the most important experience, followed by taking or contributing to major decisions and then by taking on new responsibilities. Controlled interventions such as coaching/mentoring, appraisal feedback, and temporary new

responsibilities were awarded relatively low ratings.

Connected to experiential learning is action learning. A group process such as action learning, owing to its collaborative nature, can facilitate LD, as individual leaders develop collaboratively through work-based 'learning-in-action'. Action learning is a model of experiential learning in which participants learn by incorporating programmed knowledge with questioning insight. Action learning is cyclical and ensures that real issues and critical analysis are used in the learning and inquiry process through action and reflection and by using the wisdom of the whole group. (Roberts and Coghlan, 2011).

Orr (2020) provides a reflection on active learning in LD. The first part of active learning is the work to be done/performance incorporated in the learning, enabled secondly by structured reflection and finally implemented through practice and the skills learned.

These experiences can be wide-ranging. DeRue and Wellman (2009) identify five task-related characteristics that make work experiences developmentally challenging: unfamiliar responsibilities, high levels of responsibility, responsibility for creating change, a role that involves working across boundaries, and the need to manage diversity. However, it is important to note that individuals are more likely to benefit from challenging experiences when they have a positive attitude to learning and have adequate support (Boak and Crabbe (2019). These experiences can be built into a planned process of development.

Pedagogical changes and new approaches to LD will only be successful in an environment of leader curiosity, learning agility and growth mindset. Caniels, Semeijn and Renders (2017) argue that the growth mindset is a prerequisite for developing leaders and others, because the fundamental starting point must be the belief that you and others can grow and develop continually. Neuro-leadership has also made significant contributions in our understanding of LD. Leaders should develop a curious mindset to help them anticipate complicated and unforeseeable problems (Bolman and Deal, 2008). Leaders with positive working

relationships with others have trigger areas in the brain associated with exciting attention, activating the social system, and other regions associated with "approach" relationships (Kelly, 2014). Effective leadership requires less focus on skills and outcomes, and instead centers learning as a critical capacity. In his taxonomy of significant learning, Fink (2013) calls this capacity learning how to learn. Metacognition is the act of thinking about thinking (Day et al., 2009).

2.12.5 Blended, Digital and Virtual Learning

As virtual and hybrid work becomes a reality, it is time to shift to virtual, remote, e-leadership and digital LD (HBR, 2018). Educating leaders for the FoW will require teaching, learning and assessment strategies that transcend space and bring together learners in creative ways (Sowcik et al., 2015).An increasing number of institutions support the idea that blended learning should be introduced as part of a transformative redesign process that rebuilds courses, as opposed to just 'adding on' technology to existing content (Garrison and Vaughan, 2008; Hilliard, 2015; Littlejohn and Pegler, 2007; Sharpe, Benfield, Roberts and Francis, 2006; Smythe, 2020; Vaughan, 2007). Peres and Mesquita (2016) urge us to move blended learning beyond learning management systems in order to engage learners in active use of multiple resources that encourage self-regulated study, problem solving and collaboration.

Virtual LD is now a proven method for delivering programs that accelerate the speed and impact of learning and can scale to meet the needs of global enterprises. Furthermore, Uhlin and Crevani (2019) address the need for more insight into how digital technologies are included in LD by focusing on e-leadership (leadership through digital tools).

2.13 Integrated LD Models for a Complex Context

Attempts have been made in the past to provide integrated guidelines and models of LD. Weiss and Molinaro (2006) developed an LD model consisting of eight steps. The eight steps

in the integrated-solution approach to LD are:

- develop a comprehensive strategy for integrated LD;

- connect LD to the organisation's environmental challenges;

- use the leadership story to set the context for development;

- balance global enterprise-wide needs with local individual needs;

- employ emergent design and implementation;

- ensure that development options fit the culture;

- focus on critical moments of the leadership lifecycle; and

- apply a blended methodology.

Many of these steps are supported in the literature. Lekiw and Singh (2007) conducted a systematic review of the literature on LD best practices and proposed a series of steps or practices that practitioners can use in developing and assessing their programs. They found six factors to be vital for effective LD: a thorough needs assessment, the selection of a suitable audience, the design of an appropriate infrastructure, the design and implementation of an entire learning system, an evaluation system and corresponding actions to reward success and improve on deficiencies.

However, as the FoW has become more complex and disruption more frequent, and as our view of leadership has changed, the models of LD also need to evolve. The most comprehensive attempt to date in defining holistic and updated leadership in an integrated model was made when Day, Harrison and Halpin (2009) addressed the question of how holistic leadership might be developed. The researchers used an inter-disciplinary approach and included adult development theory in their model which spans different developmental layers all ultimately leading to observable behaviours. The layers below behaviour are comprised of what they call the meso and foundation layers. They are much less observable than behaviours and comprise leader identity processes, values and mindsets.

A more "simplified" framework of LD was presented by O'Connell (2014). This framework focuses on five different "webs of belief" as a launching point for building behavioural and cognitive complexity that are required in volatile, uncertain, complex, and ambiguous environments. O'Connell's five webs were a focus on learning, reverence, purpose or service, authenticity, and flaneur. Two more recent integrated models of LD are those of DeRue and Myers (2014) and Veldsman (2017).

DeRue and Myers (2014) provide a conceptual framework to help organize and synthesise key insights from the literature on LD. This PREPARE framework calls attention to the strategic purpose and desired results of LD. It emphasises how organisations can deliberately and systemically leverage a range of developmental experiences for individual and collective leaders. The framework is made up of seven components:

1. Purpose – why the organisation is engaging in LD and how that development enables the achievement of the strategy and performance goals.

2. Result – the desired outcome.

3. Experience – the mechanism through which LD occurs, i.e., formal training, on-the-job assignments).

4. Point of Intervention – the intended target group – individual or collective.

5. Architecture – the features of the organisational context that facilitate and support LD.

6. Reinforcement – the temporal sequencing of developmental experience.

7. Engagement – the ways in which individuals and collectives enter, go through and reflect on the LD process.

Veldsman (2017) writes that LD should be future-centric, starting from expected leadership challenges and requirements within the requisite timeframe and strategic horizon. He offers the following LD guidelines:

- Development must match the organisation's operating arena, matching its contextual

complexity in breadth and depth.

- It must be aligned to an explicit future focused leadership model that is multi-dimensional, systemic and covers all stakeholders.

- The content should be aligned to the model chosen and the leaders' lived world.

- Development should focus more on the "how" than the "what" by leveraging the learning process in all its forms. Content needs to be integrated and adapt as the context changes and should focus on the whole leadership community, which must comprise active, contributing collaborators.

- Leaders need to be committed to the learning and to leadership.

- The development process should start early and be ongoing.

Veldsman (2017) proposes LD embedded in a triangle of Context-Organisation-Followers, with dynamic alignment between the three.

The models of DeRue and Myers (2014) and Veldsman (2017) begin to address some but not all of the emerging research and practices in LD in the context of the FoW and continuing disruption.

2.14 Chapter Summary

The lack of a unifying theories of leadership and LD is in large part due to differences in cognitive complexity and the various constructs available to people formulating such theories. Many scholars and practitioners do not adequately distinguish between 'leader' and 'leadership' and between 'leader' and 'leadership development' (LD). This is the starting point for any research into and design of future-fit leadership models and LD interventions. There are also many different definitions and theories of leadership and LD and no agreement on even how many theories there are.

What is clear is that traditional myopic views of leadership and LD are not delivering the impacts needed to help leaders (the ecosystem) thrive in the new world of work and ongoing

disruptive context. Emerging theories should be considered, and integrative models and principles developed to address these shortcomings. What leadership is needs to be challenged and how leadership is developed needs to follow.

There are many calls for reviewing leadership and LD in context. The context is now more complex than ever. The vantage point of leadership and LD needs to be informed by Industry 4.0 and ongoing disruptive events that create ever-increasing complexity and chaos. Leadership needs to be seen as multilevel, relational and shared. LD needs to be approached as holistic, longitudinal, collective and individual and support the new virtual and digital environment. Pedagogies need to be updated to be based on adult development and be social constructivist and transformative in nature to deal with the realities leaders face in their contexts. Development needs to be evaluated and adapted in an ongoing way to ensure real impact.

We therefore propose that there remains a gap in the development of an integrated, future-focused theory of leadership and LD in the complex and chaotic environment that leaders face.

In summary, The literature points to the following themes:

1. Design – the design of any leadership approach has to be co-created with participants using human centred design and aligned to the context, strategy and culture of the organisation. Real organisational challenges need to be embedded in the design.

2. Participants – LD has to be eco systemic and with flatter and empowered structures be delivered to all leaders at all levels. These leaders need to be assessed in terms of their readiness, commitment and learning trajectories on the adult development scales and their learning adjusted accordingly.

3. Method – to deliver ongoing learning journeys for increasingly mobile and virtual leaders, digital and blended approaches need to be used.

4. Learning – learning needs to address all moments of learning moving the learner from learning

to performance.

5. Content - learning needs to move away from competency based approaches and focus on deeper work to address mindset, character and values development as well the need for behavioural and competencies for the new world of work. Leaders need to be given experiences and be given the opportunity to immerse themselves in experiments.

6. Facilitators need to be selected that understand the new way of learning and how to use technology. They need to be versed in transformative, dialogic, critical and connectivist methodologies.

7. Results and learning needs to be tracked in real time and adjustments made to individual journeys as well as to programs to ensure ongoing improvement and impact.

3. Research Methodology

3.1 Introduction

This chapter examines the research methodology adopted. The overall aim of the study was to develop leadership and LD models fit for the context of the FoW and apply it to a global and virtual LD program for senior leaders of a professional services firm (PSF).

In order to achieve these purposes, the following research questions were addressed:

Q1. What are the emerging themes of research and practice of leadership in FoW?

Q2. What could an integrated model of LD in the FoW look like?

Q3. How can the integrated models of leadership and LD fit for the FoW be applied in a real-life and virtual LD program?

In this chapter an in-depth discussion of the research philosophy and rationale is provided, together with the research methods and data collection and analysis approaches. The research methodologies adopted include qualitative, positivist methods of data collection and analysis. Data collection methods include a scoping review, semi-structured interviews and a case study. Data analysis methods include thematic analysis using WordItOut and NVivo 12, program evaluation methods and triangulation.

3.2 Research Philosophy and Rationale

Broadly, the researcher integrated practice in the field with academic insights. The researcher has 28 years' direct work in the field where she has identified an integrative set of themes of leadership and LD based on her experience developing and implementing leadership models and executive development courses. The nature of the study presented in this thesis is exploratory, building on existing knowledge and theories, but also receptive to any new or as yet unthought-of relationships or phenomena.

Underpinning the methodology is a philosophical stance in relation to the purpose and

place of research in general, and this research in particular. This study uses a positivist qualitative method. Bryman (2004) writes that qualitative research has become a more prominent style in social sciences and organisational studies. The object of qualitative analysis is to deconstruct data and assign them to categories that make sense from a theory and conceptual level based on assumptional set (Jones, 2005). The qualitative methods used in this study include scoping reviews, semi-structured interviews and a case study.

The key reason for this approach is that there is an initial generation of models and the positivistic perspective is "to discover and document universal laws of human behavior" and "to learn about how the world works so that people can control or predict events" (Neuman, 2003, p. 71). Qualitative research suits the study well because it helps make sense of complex social phenomena – leadership and LD, as well as the context of leadership and LD.

A central tenet of positivism is that researchers can take a 'scientific' perspective when observing social behaviour, with as objective an analysis possible (Travers, 2001). Lin (1998) writes that positivist work seeks to identify qualitative data with propositions that can be tested or identified: the data themselves are taken as observations and the researcher tries to determine which pieces of information are associated, and then evaluate the strength of that association.

This is not a pure interpretivist study because: (i) the research does not employ a theoretical sampling strategy based on theoretical considerations that fit the phenomenon being studied, (ii) the researcher does not take a neutral stance during data collection and analysis, and (iii) the research is more reductionist in nature rather than holistic and contextual (Giorgi and Giorgi, 2003).

3.3 Research Methods

The research methodologies sequentially employed in this study comprised a scoping review, semi-structured interviews and a case study. As such, it aimed to examine themes,

models and theories in the field, identify the most complete, noting gaps and developing more comprehensive models, which was then tested in a case study of a global and virtual senior LD program.

Each of the methods is discussed in more detail below.

3.4 Scoping Review

The research started with a scoping review of the literature pertaining to leadership and LD in the context of the FoW. The scoping review is a way of synthesising research evidence (Pham et al., 2014). It aims to map the existing literature in a field of interest in terms of the volume, nature, and characteristics of the primary research (Arksey and O'Malley, 2005).

3.4.1 Rationale for the Scoping Review

A scoping review of a body of literature can be of particular use when the topic has not yet been extensively reviewed or is of a complex or heterogeneous nature (Mays, Roberts and Popay, 2001). In this instance, the topic is complex in this case leadership and LD in the context of the FoW. Scoping reviews can be useful for answering broad questions, such as "what knowledge has been presented on this topic in the literature?" (Sucharew and Macaluso, 2019). It achieves the following objectives: 1) identifying the types of existing evidence in a given field, 2) clarifying concepts and definitions in the literature, 3) identifying key characteristics related to a topic, and 4) identifying knowledge gaps (Munn, Peters, Stern, Tufanaru, McArthur and Aromataris, 2018). Scoping reviews require comprehensive and structured searches of the literature to maximise the capture of relevant knowledge to provide reproducible results and decrease potential bias (Sucharew and Macaluso, 2019). Because leadership and LD research and practice comprise so many disparate views and theories, a scoping review helped narrow the topic in the context of the FoW and identified critical gaps and opportunities.

3.4.2 Strategy and Process

The literature scoping review was conducted using Emerald, Google Scholar, Science Direct, ProQuest, and Web of Science, using keywords such as leadership, leadership/leader development, leadership/leader training and FoW and leadership. An example of the scoping review for "leadership development in the future of work" is shown in Appendix A.

3.4.3 Data Analysis

The scoping review was analysed using thematic analysis. According to Boyatzis (1998), thematic analysis is a method that can be used to organise data and describe it in detail using themes. Braun and Clarke (2006) write that a theme can be identified by how well it captures the data in relation to the research question set.

Maguire and Delahunt (2017) describe thematic analysis as "the process of identifying patterns or themes within qualitative data" (p. 3352). They describe the goal of thematic analysis as in general identifying themes to address or say something about a specific issue. At the end of the analysis, broad themes are identified and reviewed in terms of whether they make sense overall before being written up. Therefore, thematic analysis, which could also be described as qualitative conceptual content analysis, should be seen as a foundational method for qualitative analysis.

However, thematic analysis's flexibility does have limits, and there are clear guidelines for its use: Braun and Clarke (2006) point out that the analysis process could be considerably strengthened, depending on a number of choices made by considering the following question before commencing with the analysis. What counts as a theme? This is determined by either 1) considering the number of instances that a theme comes across in a data set, in which case the researcher reports that the majority of or many or a number of participants had suggested certain themes, or 2) the instances where the "keyness" of the theme (Braun and Clarke, 2006, p. 82) is not dependent on quantifiable measures, but rather on whether it captures

something important in response to the research question.

In order to identify themes, NVivo 12 coding to nodes was used. Literature and interview data were loaded into NVivo. NVivo is a computer-assisted qualitative analysis software (CAQDAS) package by QSR International. Software is useful as a repository and for sorting through data (Bryant & Charmaz, 2010).. In NVivo, coding is the process of gathering related material into a container called a node. When you open a node, you can see all the references in the project coded to the node. Deductive coding was used in this study because a pre-defined list of codes was used, based on the 28 years' experience of the researcher in leadership and LD.

As each phase of coding began, it was important to continue reviewing the data in previous phases so that connections were constantly being made until saturation occurred. Coded nodes in NVivo were read and reread to identify significant broader patterns of meaning (potential themes). NVivo 12.0 was chosen due to the features offered by the software (such as searchable annotations and hierarchical categories). An example of the NVivo analysis for the scoping of the literature pertaining to "leader and leadership development" is shown in Appendix B.

3.5 Semi-structured Interviews

According to Morse and Niehaus (2009), semi-structured interviews are typically used when the researcher has knowledge about the topic either from previous research or from the literature, which in this case was informed by the literature scoping review and the researcher's practical experience as a leadership developer.

Qualitative interviews give a new insight into a social phenomenon because they allow respondents to reflect and reason on a variety of subjects in a different way (Folkestad, 2008, p.1). This provides independent thought from participants. According to Casell and Symon (2004), interviews are usually preferable for exploring subjects where different levels of

meaning need to be examined.

3.5.1 Why Semi-structured Interviews?

Semi-structured interviews were used because questions could be clarified for the interviewee and answers can be followed up as appropriate (Gillham 2000; Leedy and Ormrod, 2005). Adams (2015) describes semi-structured interviews (SSIs) thus: "SSI employs a blend of closed- and open-ended questions, often accompanied by follow-up why or how questions" (p. 493).

3.5.2 Sampling Strategy

Judgement sampling was used in this study. Judgment sampling reflects some knowledge of the topic, so that people whose opinion will be important to the research, because of what you already know about them, will be selected (Bloomberg and Volpe, 2012; Harrell and Bradley, 2009). The researcher worked with top thought leaders in her network, which included Academic Leadership Researchers through to CEOs who are successful in Industry 4.0 and Heads of LD in large multinational organisations facing significant challenges in their industries.

The group included eight female and fourteen male participants. In terms of organisational roles, the group included two CEOs, three lead global LD heads, eight academics who also work as practitioners, and nine consultants who work on large-scale, complex LD programs. They all have at least 15 years' experience in the field.

3.5.3 Interview Structure and Process

The process used included recruiting respondents, drafting the questions and interview guide, determining techniques for this type of interviewing, and analysing the information gathered.

The interviewer can have some discretion in some aspects of the interview for example the order of questions but anchors it in a standardized list of pre-prepared questions and probes to

ensure the research is valid and the correct data gathered. The style of the interview is conversational and these kind of interviews can, through probing, provide real depth with regard to a topic covered.

In this instance, a guide was used, with questions and topics that must be covered. The questions were based on unsolved and unintegrated gaps in the literature review, i.e., disagreement on the definition of leadership, approaches to LD and the importance of context in leadership and LD. They were deliberately open-ended to allow for further probing. Two sets of questions were used: 1) a set relating to leadership, and 2) a set relating to LD. Questions like "can you be more specific", "tell me more", "why do you say that" were used to follow up the list of questions used. The interviews lasted between 45 and 75 minutes.

Participants were contacted via email or LinkedIn and the interview guide and questions were sent to them beforehand. Interviews were conducted via Skype technology. As soon as practical after the interviews concluded reflective interview notes were made.

The interview guide used is attached in Appendix C.

3.5.4. Ensuring Anonymity and Confidentiality

For the semi-structured interviews, ethics permission was obtained from the University of Queensland. This is shown in Appendix H. The risks to human subjects associated with this study were minimal. All participants were over 18 years of age, and did not demonstrate any impaired mental capacity, as determined by their ability to perform the positions that they hold in the workplace. Meeting these criteria qualified them as participants in this study. Additionally, all recorded materials will be erased after five years, following final approval by the research committee, thus minimizing any future risks related to confidentiality.

Consent was asked from participants for the semi-structured interviews. In line with the guidelines provided by Lincoln and Guba (1985) regarding credibility, the researcher

personally collected the data throughout, and allowed as much data saturation as possible to occur.

3.5.5 Data Analysis

In order to develop initial themes, all texts from the interviews were copied into WordCloud software and a word count was done to see which themes were mentioned most often. It is important, however, to remove words such as 'the', 'of' and 'and' to ensure that words relevant to the topic are counted. The WordCloud software program was chosen to help make initial sense of large amounts of text by summarising it and showing possible trends. It is not a quantification of qualitative data but leads to helpful questions about the data. It is important to note that WordCloud does not count the weighting of words, only the frequency. Word clouds are useful in analysing any kind of text data or responses. Using word clouds provide a visual picture of the text allowing insight into emerging trends. (DePaolo and Wilkinson, 2014). McNaught and Lam (2010) recommend using word cloud tools as a supplementary research tool. Word clouds can identify trends and patterns that would otherwise be unclear or difficult to see in a tabular format and are therefore useful when attempting to define a holistic concept. An example of the word clouds used is shown in Appendix D.

Vignettes from the interviews were also used to illustrate key themes for this study, and also served as support for the results of the study (Leedy and Ormrod, 2013). Transcribing entire interviews and manually coding them helped ensure a deep understanding of the interview content and participant intent.

The themes emerging from the scoping review were then triangulated with those of the semi-structured interviews. A triangulation considers multiple perspectives of the same phenomena through analysis of different data sources (Denzin and Giardina, 2006). It is used to validate and cross-validate themes from the data. The following triangulation protocol was

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used:

Step 1: Sorting – identify key themes from each data set to compare. Summarise similarities and differences

Step 2: Convergence by agreement, partial agreement, silence, dissonance

Step 3: Assessment of level of convergence

Step 4: Record triangulated results.

An example of how triangulation was used to compare results from the scoping review and semi-structured interviews is shown in Appendix E.

3.6 Case study

The qualitative case study method was used to evaluate the effectiveness of a global and virtual senior LD program in a PSF based on the models of leadership and LD in the context of the FoW.

3.6.1 Why the Qualitative Case Study Method?

Creswell (2003) defines a case study as one where the "researcher explores in depth a program, an event, an activity, a process, or one or more individuals" (p. 15). Yin (2018) defines a case study as "an empirical method that investigates a contemporary phenomenon (the 'case') in depth and within its real-world context, especially when the boundaries of the phenomenon and context may not be clearly evident" (p. 15). Qualitative case study method aims to explore phenomena within specific contexts through different data sources to reveal different perspectives of the phenomena – case studies provide the opportunity to study phenomena in real time in and in real contexts and explores whether the context makes a difference in the phenomena studied. (Baxter and Jack, 2008; Kaarbo and Beasley, 1999; Miles and Huberman, 1994).

According to Yin (2012), a case is a "bounded entity", but "the boundary between the case and its contextual conditions – in both special and temporal dimensions – may be blurred" (p.

6). Cases can be organisations, processes, programs, individuals, neighbourhoods, institutions, or events, and there can be nested units within the main unit (Yin, 2014). According to Yin (2014), As a general guide, the tentative definition of the case (or of the unit of analysis) is related to the way the initial research questions are defined. It is also possible that the case may consist of single or multiple cases (Stake, 2006). Leedy and Ormrod (2001) further require a case study to have a defined time frame. The case study can be either a single case or a case bounded by time and place (Creswell, 1998). Creswell (1998) suggests the structure of a case study should be the problem, the context, the issues, and the lessons learned.

A real-life senior LD program meets these criteria as a real-time phenomenon in a naturally occurring context. It is clearly bounded by time and context. The case study was approaches in phases. Yin differentiates six phases of case study research: plan, design, prepare, collect data, analyse, and share a report. This is shown in Figure 1, below.
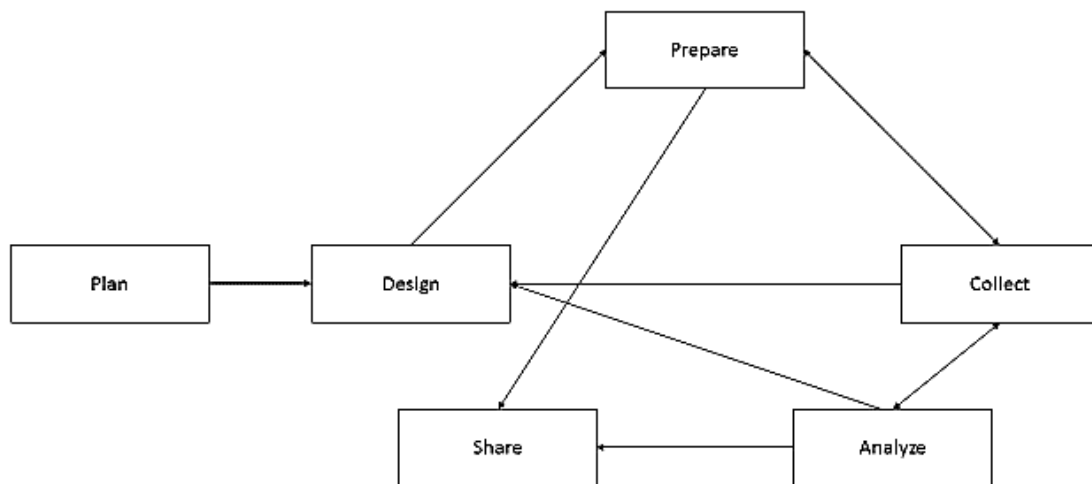
Figure 1. Six phases of case study research

The six stages were executed as follows:

1. A plan was developed for how the case study will be constructed following the leadership program design, delivery and evaluation.

2. The program and case study design was signed off with the client.

3. Participants were prepared for the program and preparations were also made to collect the sets of data set out in the plan.

4. Data were collected before, during and after the program to evaluate impact.

5. The results were analysed and triangulated; and

6. A final report was presented to the client and written up in the final case study paper.

3.6.2 Sample

The case study client is a global PSF. For the case study, there were two groups of participants: an Executive team that sponsored the development program (10) and the 150 LD program participants who are all CEO and Business Unit Level Leaders from all 130 countries in which the organisation operates. The company is a global PSF with four lines of business. It is part of a larger global holding company. It is important to note that there was no control group, as the organisation requested all leaders globally at this level participate in the program.

3.6.3 Ensuring Anonymity and Confidentiality

For the case study, ethics permission was obtained from Swinburne University of Technology. This is shown in Appendix H. Consent was implied because it formed part of the evaluation of the LD program for the client and this was communicated to all participants and sponsors of the program with the option to opt out.

3.6.4 Data Analysis – Kirkpatrick

Swanson and Holton (1999) and Miller (2018) argue that every LD intervention should be evaluated and lead to a system outcome at some point. A systematic process for gathering and interpreting information in order to assess the implementation of objectives is called evaluation (Neyazi et al., 2016). Schalock (2001) defined Effectiveness Evaluation as the determination of the extent to which a program has met its stated performance goals and

objectives. Evaluating learning is complex and a variety of conceptions of evaluation of management and LD programs exist. This leads to low or inadequate levels of evaluation of LD programs. Only 11 of the 83 studies in Collins and Holton's (2004) meta-analysis measured system objectives, and only one study provided financial outcomes.

Avolio and Luthans (2006) report that a review of the leadership intervention literature from the last hundred years only produced 201 articles on studies examining the impact of leadership interventions, and fewer than half were focused on LD. One definition of learning evaluation sees it as the systematic collection of data to determine success in terms of quality, effectiveness or value (Goldstein, 1986; Hannum and Martineau, 2008). This occurs when specified outcome measures are conceptually related to intended learning objectives (Kraiger, Ford and Salas, 1993). Whether evaluation is to 'prove' or 'improve' is at the heart of the distinction between summative and formative evaluation: summative evaluation is about proof and formative evaluation is about improvement (Michalski and Cousins, 2001).

In order to analyse the effectiveness of the case study program the Kirkpatrick model was used as it has served as the primary organizing design for training evaluations in for-profit organizations for over 30 years. It provides a straightforward system or language for talking about training outcomes and the kinds of information that can be provided to assess the extent to which training programs have achieved certain objectives. The Kirkpatrick model has helped focus training evaluation practice on outcomes (Newstrom, 1995), fostered the recognition that single outcome measures cannot adequately reflect the complexity of organizational training programs, and underscored the importance of examining multiple measures of training effectiveness. All levels of Kirkpatrick's Evaluation model are extremely important in determining the overall effectiveness of a training or program.

The Kirkpatrick 4-level model (1994) of learning evaluation was used in the following way in the evaluation of the case study program impact:

3.6.4.1 Level 1: Participant's reaction to the learning. A strong correlation exists between learning retention and how much the learners enjoyed the time spent and found it valuable. For Level 1, there were immediate surveys to test reactions after each single unit of learning intervention on the program using SurveyMonkey. Continuous adjustments were made to content and learning process to reflect participant feedback.

3.6.4.2 Level 2 and 3: Participants' learning and transfer of learning into practice. Level 2 is learning, that is, how much of the content attendees learned as a result of the training session. This evaluation is typically achieved through the use of a pre- and post-test. Level 2 was measured through a survey at the end of the program using a seven-anchor Likert scale.

Level 3 measures whether the learning is transferred into practice in the workplace. The same survey used for level 2 comprised level 3 questions. The learning evaluation questionnaire tool used for the level 2 and 3 evaluation was SurveyMonkey. Survey Monkey is an internet program and hosting site that enables a person to develop a survey for use over the internet. Once the questionnaire is in place and working according to the logic required it can be used. A URL can be copied and pasted into an email to a survey population or the URL can be placed on a specific web page that the survey population is directed to (Waclawski, 2012).

Likert-type questions were used to collect the evaluation data. Pre-existing best practice questions were used from research and existing evaluation questionnaires to ensure that the procedure met the definition of the Kirkpatrick model. The Likert scale is simple to construct and likely to produce a highly reliable scale. From the perspective of participants, it is easy to read and complete. A possible limitation of the Likert scale is that participants may avoid extreme response categories and this will cause central tendency bias (Taherdoost, 2019).

Likert scales can range from between two and eleven anchor points. According to Schutz

and Rucker (1975), the number of response categories does not materially influence the cognitive structure derived from the results. Matell and Jacoby (1971) reported that both reliability and validity are independent of the number of scales and so, by decreasing the number of response choices, reliability and validity will not be decreased.

A seven-anchor scale was used. Taherdoost (2019) writes that the Likert scale is applied as one of the most fundamental and frequently used psychometric tools in sociology, psychology, information system, politics, economy, etc. On a Likert scale, respondent indicate their degree of agreement and disagreement with a variety of statements about some attitude, object, person or event. The definitions of the seven anchors are based on the work of Vagias (2006).

Preston and Colman (2000) examined the respondent preferences from the perspectives of "ease of use", "quick to use" and "express feelings adequately". In this study, respondents rated their level of preference from 0 to 100. Results show that scales of five-points, ten-points and seven-points scored highest in respect of "ease of use". Colman (1997) compared rating scales of 5- and 7-point scales from 227 respondents in the UK and found the correlation between 5-point and 7-point scales was high (r=.921, p<.001). Preston and Colman (2000) found that for rating scales the most reliable scores were from scales between seven and ten points.

The learning evaluation questionnaire is attached in Appendix E.

The data was combined with semi-structured interview data with the six Executive leaders who initiated the programs and acted as sponsors and coaches throughout. The senior leader/coach interview guide is attached in Appendix F and the participant evaluation questionnaire in Appendix G.

3.6.4.3 Level 4: Client Sales Result. Level 4 measures business results. During the PSF LD program, clients were nominated as real-life learning cases and sales data for those clients

were tracked in terms of scale and breadth of organisational engagement to measure business impact.

Hayward (2011) proposed the following bottom-line assessments to enhance the connection between learning and the bottom line: staff retention; internal promotions; performance improvements; increased productivity; increased turnover and profits; increased market value; cost savings; customer attraction, satisfaction and retention; and action learning projects.

Less than 5 percent of training programs are evaluated in terms of their financial benefits to the organisation. Of the studies that did report such an analysis, examples of the financial benefits include productivity improvement, increased profitability, increased sales or revenue, improved quality, improved quantity, and decreased turnover (Swanson, 2001).

Business results are assessed using real Client Sales data tracked over 12 months by the Commercial team. These clients were selected as part of the client challenge set for the LD program to assess real business impact. The learning used these real client cases throughout. The measure covers performance improvement, increased turnover and profits, customer attraction and action learning projects.

There are many other factors that influenced client growth and business results, including the impact of COVID 19 on the world economy and the professional services sector, as well as challenges clients faced during this time. Other initiatives were also being rolled out across the organisation at the time of the program, including Issues Led Selling initiatives and a corporate reorganisation to focus better on commercial outcomes.

3.6.4.4 Triangulation of the Data. Once all the data were collected, the results of the survey and interviews were triangulated and key themes developed from all levels of analysis to identify clear areas of impact and areas that needed further development and improvement.

3.7 Chapter Summary

This study aims to develop a leadership and LD model fit for the context of the FoW and then apply it in a global and virtual senior LD program for leaders of a PSF in the FoW This chapter examines the research methodology adopted in this thesis, namely, qualitative, positivist methods of data collection and analysis. Data collection methods include a scoping review, semi-structured interviews and a case study. Data analysis methods include thematic analysis using WordItOut and NVivo 12, program evaluation methods and triangulation.

4 Leadership in the Context of the FoW

The first of three papers that form the core chapters of the PhD study is appended in this chapter. Various iterations of the paper had been presented at these conferences:

SIOP (Society for Industrial and Organizational Psychology, Orlando, USA, 2017

IOP (Industrial and Organisational Psychology), Sydney, 2017

EURAM (European Academy of Management): Research in Action, Iceland, 2018

Following feedback from reviewers and scholars attending the paper presentation at the conferences, the paper was published as a book chapter. A short introduction to the book chapter is provided below to show how it fits the entire PhD study.

Roux, M. (2020). Leadership 4.0. In *Maturing Leadership: How Adult Development Impacts Leadership,* ed. by Jonathan Reams, Emerald Publishing Ltd, UK.

4.1 Introduction

This chapter establishes the mindsets and practices of leadership in the context of the FoW. It is proposed that, instead of further proliferation and confusion about leadership, time is better spent integrating models and discerning appropriateness of concepts for the new context leaders lead in. This chapter therefore considers the changing nature of organizations, work and leadership in the context of the FoW. It identifies the disparity in leadership theories and analyses recent attempts to develop integrated and holistic leadership models. In reviewing these, we then attempt to create an updated and holistic model of leadership in the future of work context.

Day et al.'s (2009) model provides us with a strong starting point to develop an updated and integrated model for leadership in the FoW but, based on our insights gained from the literature review and interviews with thought leaders about current changes in practice, it misses critical components and details needed to operationalize it. Based on the research in this study, context, levels of work, underpinning mindsets and morals and ethics need to be added to enhance the

model. The integrated meta-model structure is a four-layer model set in context and an eco-system resting on a growth mindset, curiosity, and learning agility.

4.2 Book Chapter

Maturing Leadership — How Adult Development Impacts Leadership. Jonathan Reams
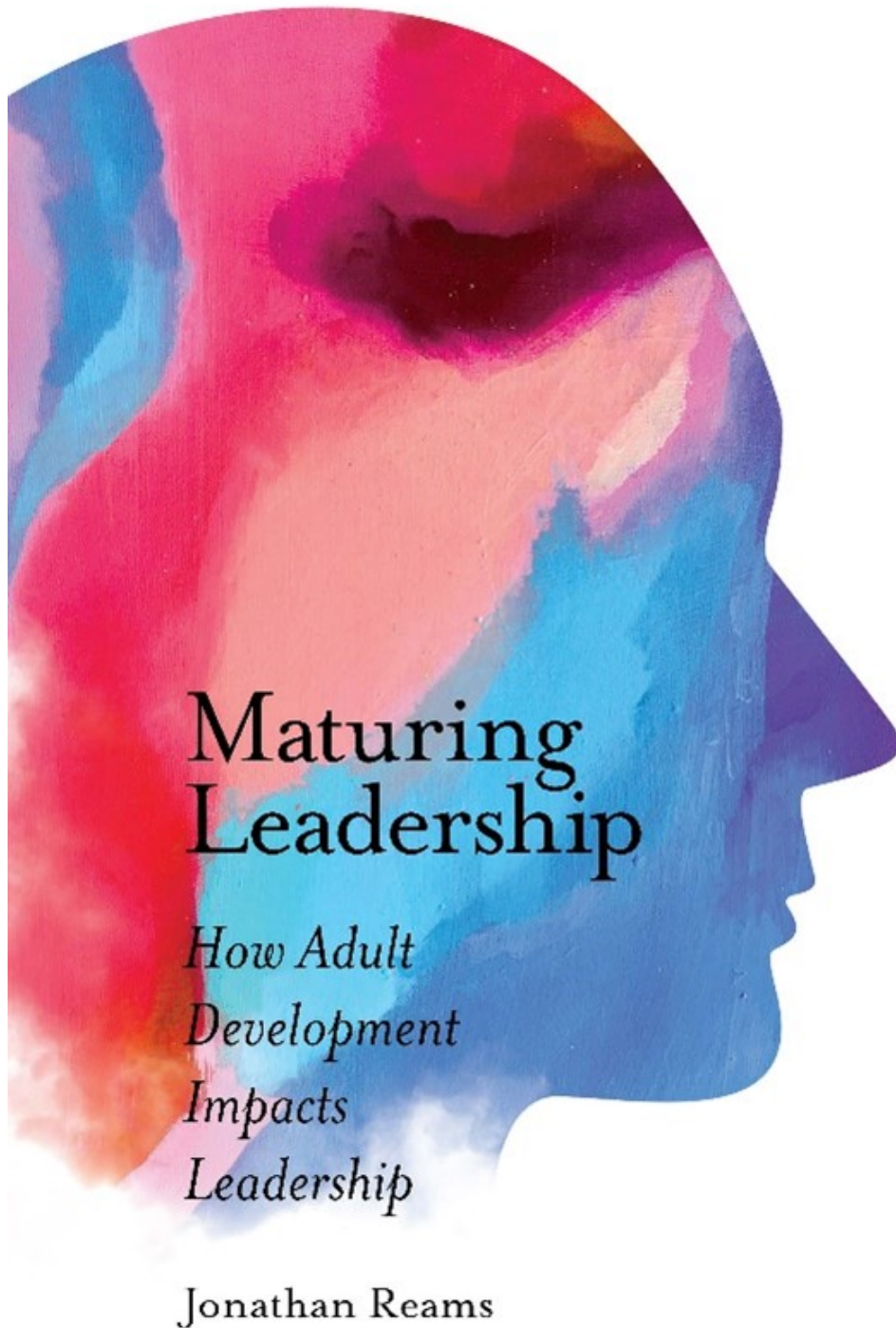
Leadership 4.0

Marianne Roux

Introduction

Digitalization is often seen as the most essential factor in the Fourth Industrial Revolution (World Economic Forum, 2016) and is powerful enough to have implications on current and future leadership practices. A study by Artley (2018) warns that we continue to underestimate the scale and speed of change leaders have to navigate and lead in in an integrated, positive, human and impactful way in the Fourth Industrial Revolution (Schwab, 2016). For the purpose of this chapter, I will talk about new world of work as "4.0" (Lund et al., 2012; Kreutzer et al., 2018) and about the concept of leadership for this as "Leadership 4.0" (Kelly, 2019).

Leadership scholars have certainly noted this significant increase in the challenges leaders face in the new world of work 4.0. (Gratton, 2010, 2011; Lund et al., 2012). The question is whether our thinking as scholars and practitioners have significantly evolved to ensure we present models and practices of leadership that truly address the complexity leaders face. It seems not.

The CEC report (2017) notes that despite of, or even partly due to a growing leadership industry with an estimated \$130 - \$356 billion spent per year on LD alone, there seems to be a profound conceptual confusion about what leadership and LD is about. According to a Harvard Business School survey, only 19% of line managers believe the programmes they are taking are relevant to the issues they face.

Bormann and Rowold (2018) also call out the continued increase in new leadership models and approaches and suggest in their paper that "newly" designed constructs are too similar to those that already exist and consequently lack discriminant validity. Veldsman and Johnson (2016) describe the dilemma we find ourselves in as such:

Leadership is in an overheating crucible of a reframed world in the throes of fundamental and radical transformation. The search is on for better and different leadership. Without any doubt leadership is the critical strategic capability of nations, communities and organisations, making them sustainably future-fit. To the best of our knowledge, no overall, systemic, integrated and holistic view of leadership exists, and few organisations adopt a systemic, integrated approach to leadership (pp. 1, 2)

I propose that, instead of further proliferation and confusion, time is better spent integrating models and discerning appropriateness of concepts for the new context leaders lead in. If not, the field will continue to suffer further from conceptual redundancy and fragmented approaches. This chapter therefore considers the changing nature of organisations, work and leadership in the new world of work (4.0). It calls out the disparity in leadership theories and analyses recent attempts to develop integrated and holistic leadership models. In reviewing these, we then attempt to create an updated and holistic model of leadership in the new world of work or what we call Leadership 4.0 (Kelly, 2019).

Research Questions and Methodology

In order to make sense of the new way of leadership required in the 4.0 context, we will work through three main research questions. I have researched and I will explain how leadership has evolved alongside the evolution of organisations and work. I will then identify some criticisms of the suitability and effectiveness of previous and current leadership research as it is applied in the 4.0 context and look for emerging themes and solutions in the new context of 4.0. Finally, I will propose an integrated and updated model of Leadership 4.0 to answer some of the criticisms of redundancy and proliferation and bring some of the newer concepts into the mainstream discussion about leadership.

Research Questions

Q1: How has leadership evolved in the context of the evolution of organisations and work,

what are the major themes relating to the context of the time/era they were developed and used in and what are criticisms or research outcomes of the application of these earlier concepts of leadership against the requirements of the new world of work 4.0?

Q2: What are the emerging themes of research and practice of leadership in the new world of work 4.0 and how do these research and practice themes help us to assess and develop leadership 4.0?

Q3: What would an updated and integrated model of leadership look like that takes into account the complexity of the context leaders lead in and how can current attempts to be enhanced with new concepts or research to update these models to a Leadership 4.0 model of leadership?

Methodology

Broadly, I have integrated practice in the field with academic insights to build up the model presented here. To do this, I used thematic analysis and word clouds to identify themes in relevant literature and from expert interviews. I combined this with 25 years of direct work in the field where I have identified an integrative set of themes of leadership based on my experience developing leadership architecture and executive development courses and through my training as an executive, consultant and academic in the areas of; Adaptive leadership (Heifetz, 1994), levels of work, (Jaques,1989, 1990), adult development theory (Loevinger, 1976, Cook-Greuter, 1985, 2004; Dawson, 2016; Fischer & Immordio-Yan, 2002) , behavioural theory (McGregor, 1960, Maslanka (2004)), trait theory (Stogdill, 1948; Mann, 1959; Gardner, 1989; Bennis 1998) contingency theory (Fiedler and Garcia, 1987; Fiedler, 1997; Blake et al., 1964; Hersey & Blanchard; 1977) and competence based development (White (1959; Chomsky, 1969, 2010; Raven, 2002 ; Mansfield, 2004).

A set of themes was developed based on an analysis of literature on the evolution, criticisms and emerging practices in the theories of leadership as well as the reasons our

theories and practices of leadership have failed to deliver the kind of leaders we need in the new world of work.

I further identified 22 thought leaders from a variety of backgrounds in my network ranging from Academic Leadership Researchers to CEOs that are successful in the new world of work 4.0 and Heads of Leadership Development in large multinational organisations facing significant challenges in their industries. The semi-structured interviews were used to test both my own insights and themes emerging from the literature.

To assess the themes from the interviews, I used WorditOut word cloud software available on the internet to identify key themes in the literature and in the interviews. McNaught and Lam (2010) recommend using word cloud tools as a supplementary research tool. Word clouds can identify trends and patterns that would otherwise be unclear or difficult to see in a tabular format and are therefore useful when attempting to define a holistic concept. Maguire and Delahunt (2017) describe thematic analysis as "the process of identifying patterns or themes within qualitative data". (p. 3352). They describe as a method rather than a methodology and that it is therefore not tied to a particular theoretical perspective making it a very flexible method.

Overall, they describe the goal of thematic analysis as identifying themes to address or say something about a specific issue. At the end of the analysis, broad themes are identified and reviewed in terms of whether they make sense overall before being written up.

Finally, I identify current leadership models from the literature that address the emergent issues and themes and use them as a base to build an updated and integrated leadership model suited to the new world of work.

Literature Review

In reading through the literature, I looked at patterns of organisational evolution, then the evolution of work and finally, the evolution of leadership theory and practice.

Organisational and Work Evolution

Laloux (2015) provides one explanation of the patterns of organisational evolution using developmental theory which assumes humans and organisations develop in stages of increasing maturity, consciousness and complexity. The evolution started with the division of labour with command by authority. At this time, there was a need for formal roles and hierarchies with stable, replicable processes. The management breakthroughs in this phase were innovation (R&D, product development), accountability and meritocracy (achievement through qualifications and skills).

Post-modern societies and organisations brought a new world view. This stage stresses cooperation over competition and is based on more equality and empowerment. It assumes all stakeholders need to be served. More focus is given to organisational culture, coaching and teamwork.

Today, organisations are moving beyond this stage to become more careful about their overall impact and develop deeper ethics. They support self-management; the wholeness of people and purpose. Heerwagen (2016) provides a simple summary of the nature of organisations today. These organisations are:

- leaner and more agile
- more focused on identifying value from the customer perspective
- more tuned to dynamic competitive requirements and strategy
- less hierarchical in structure and decision authority
- less likely to provide lifelong careers and job security
- continually reorganizing to maintain or gain competitive advantage.

Alongside the evolution of organisations, came the evolution of work and the people (and machines) delivering the work. Mobius and Schoenle (2004) write that labour was first divided into narrow tasks and to detailed job descriptions during industrialisation and then decreased again after 1970 as job roles expanded. This happened at first because machines

required standardisation. Customers, however, wanted customisation. Today, job roles are expanding horizontally, and roles are merging. We have entered the era of flat structures and autonomous work teams as well as the era of eco systemic workforces.

The rise of artificial intelligence, the automation of production processes and numerous other factors are influencing both the way we discuss the role of work and the work itself. In an increasingly complex and fast-paced world where changes become the norm and where orientation becomes a scarce resource, we need competent leaders able to structure and create a shared meaning of the current developments (CEC Report, 2017).

Stockton et al. (2018) write that the more digital, more technological and more global environment combined with fast evolving business expectations, needs and demands are creating a very different workforce. In imagining the work of tomorrow with a gig economy, with artificial intelligence and evolving business models, businesses need to transform faster than ever before in a much more turbulent environment. They identified seven new realities in the future of work namely; exponential organisations, lifelong reinvention, the unleashed workforce, technology, talent and transformation, ethics of work and society, the nimble enterprise and regulated innovation. Let's look at each of these in more detail.

Exponential organisations

These organisations are driven by big data, the internet of things, generation Y and data driven decision making. It is all about capturing the value and insights of data which can lead to exponential returns on assets by effectively mixing technology and talent. Organisational capabilities needed are statistical reasoning, data manipulation and data visualisation combined with increased human skills such as social interaction, creative thinking and complex problem solving. There are increased risks of cyber security, privacy and intellectual property violations to manage in these organisations.

Lifelong reinvention

Lifelong reinvention is a key reality in the new world of work with longer lifespans and continuously changing knowledge and skills requirements. The lengthening of productive years and the need for lifelong learning challenges traditional views of careers, retirement, work life balance and skills timelines. This, combined with the management of a quadri-generational workforce, affects leadership practices significantly. Driving this lifelong need for reskilling is the falling cost of automation and increasing use of artificial intelligence causing human-machine collaboration to rise. Organisations are developing the optimal mix of humans and machines to drive productivity, competitiveness and customer experience. This requires transformations and upskilling of humans to more complex tasks.

The unleashed workforce

The unleashed workforce combined with enabling platform technologies means organisations can use new flow to work models and leverage new team and decision-making protocols rather than traditional hierarchies and business models. The workforce is now made up of freelance workers, crowdsourced work, join venture talent, virtual digital workers and many other new forms of employment. This broadening of the talent continuum and multi-channel workforce strategies combined with the growth in team-based work challenge hierarchical business models and old management styles.

Technology, talent and transformation

The falling cost of automation and technology leads to the increased use of artificial intelligence which in turn leads to increased human-machine collaboration and talent trade-offs and transitions. Work needs to be completely reimagined. Agile organisations will continually assess the optimal mix of humans and machines and lift human capability.

Ethics of work and society

At the same time as this technological and human evolution, our ethics are shifting, and broader groups of stakeholders need to be considered. Organisations will be measured on

how balanced and ethical their response is to the technology shifts and other societal impact of their industry, community and organisation. Worker demands will push organisations to focus more in workers interests, wellbeing and needs. Organisations will be generally be held to much higher ethical standards than before.

The nimble enterprise

Nimble enterprises work in eco systems and have lean and flexible business models and cost structures helping them move fast. Smaller, more nimble businesses will emerge using cloud and online technologies to scale. These organisations will be able to access global expertise and networks and will be able to adjust to changing environments faster than traditional organisations.

Regulated innovation

With the broadening talent continuum, new regulations will have to be developed to regulate new ways of working and the use of robotics and artificial intelligence. Regulation will continue to evolve as governments, organisations and workers grapple with the complex trade-offs the future of work demands.

The Evolution of Leadership

All of this impacts what kind of leadership will be effective. King, Van Seters and Field (1990) describe leadership evolution in "eras" and write that each new era developed as a result of the inadequacies of the previous eras to describe leadership in practice. They describe leadership as "one of the most complex and multifaceted phenomena to which organisational and psychological research has been applied" (p. 43).

Kelly (2019) describes leadership in terms of Leadership 1.0, 2.0, 3.0 and 4.0. He describes each of these in more detail. Leadership 1.0 was charisma-led. This idea of the natural born leader was widespread in the mills and factories from the late eighteenth century through to the late nineteenth century where the military term 'captains of industry' was

coined by Thomas Carlyle in his 1943 book, Past and Present. Charisma has shaped the way we recruit, develop, and promote leaders for over 100 years.

Leadership 2.0 was the era of scientific management. Commentators such as Herbert Spenser thought the great man theory was unscientific believing individuals to be shaped by their social environment. In the Creative Experience, management thinker, Mary Parker Follett, directly challenged the heroic leadership model. The US railway industry, which was one of the first large-scale employers outside of the military, started to think about how to manage and lead people through a more scientific and process-driven approach. Early twentieth-century scientific management theorists, including Frederick Taylor, Henri Fayol, and Max Weber, were all preoccupied with maximising efficiency and productivity.

Leadership 3.0 came about in the late 1970s, when various studies and discussions relating to transformational leadership called for a more engaged leadership where the leader builds a meaningful relationship with the follower. Until this point, behaviourism and many of the leadership development models and tools encouraged leaders to transact with followers but transaction was about exchange and control. Transformational leadership focused on the relationship between leader and follower. This fresh approach to leadership led to a more collaborative and engaged relationship with followers.

Unfortunately, according to Kelly (2019), the culture of transactionalism and coercive leadership is still pervasive. Kelly goes on to describe how he sees Leadership 4.0 which will be discussed further in the emerging theory section of this paper.

Doyle & Smith (2001), talk about the four main 'generations' of leadership theory namely trait theories, behavioural theories, contingency theories and transformational theories. Fein (2018) simplifies the evolution of leadership into three broad categories: traditional, modern and post- modern that resulted from changes in culture and society.

Maslanka (2004) conducted a comprehensive study of leadership trends over time in

various contexts and theoretical foundations and starts her description of the evolution with the work of Max Weber (1864-1920) who set the questions of authority, status, and legitimacy in the context of religion, politics, and the military. She then goes, like the other authors discussed her, on to describe the 1920s and 30s as the time of the trait theory of leadership.

Doyle and Smith (2001) write that as early researchers ran out of steam in their search for traits, they turned to what leaders did – how they behaved (especially towards followers). They moved from leaders to leadership – and this became the dominant way of approaching leadership within organizations in the 1950s and early 1960s. Different patterns of behaviour were grouped together and labelled as styles. This became a very popular activity within management training – perhaps the best-known being Blake and Mouton's Managerial Grid (1964). Various schemes appeared, designed to diagnose and develop people's style of working. Despite different names, the basic ideas were very similar. The four main styles that appear are:

- Concern for task. Here leaders emphasize the achievement of concrete objectives. They look for high levels of productivity, and ways to organize people and activities in order to meet those objectives.
- Concern for people. In this style, leaders look upon their followers as people – their needs, interests, problems, development and so on. They are not simply units of production or means to an end.
- Directive leadership. This style is characterized by leaders taking decisions for others – and expecting followers or subordinates to follow instructions.
- Participative leadership. Here leaders try to share decision-making with others.(Wright 1996)

McGregor's work (1960) described management as needing to understand human nature and motivation differently. He proposed that employees are self-directed and creative, and leaders need to unleash this potential. People were no longer seen as machines and needed to

be involved in shaping their goals, development and the outcomes of the organisation. Leadership is therefore a supportive relationship rather than a controlling one.

Researchers then began to turn to the contexts in which leadership is exercised – and the idea that what is needed changes from situation to situation. Some looked to the processes by which leaders emerge in different circumstances – for example at moments of great crisis or where there is a vacuum. Others turned to the ways in which leaders and followers viewed each other in various contexts – for example in the army, political parties and in companies. The most extreme view was that just about everything was determined by the context. But most writers did not take this route. They brought the idea of style with them, believing that the style needed would change with the situation. (Doyle & Smith, 2001)

What began to develop was a contingency approach. The central idea was that effective leadership was dependent on a mix of factors. For example, Fred E. Fiedler argued that effectiveness depends on two interacting factors: leadership style and the degree to which the situation gives the leader control and influence. Three things are important here:

- The relationship between the leaders and followers. If leaders are liked and respected, they are more likely to have the support of others.
- The structure of the task. If the task is clearly spelled out as to goals, methods and standards of performance then it is more likely that leaders will be able to exert influence.
- Position power. If an organization or group confers powers on the leader for the purpose of getting the job done, then this may well increase the influence of the leader. (Fiedler and Garcia 1987: 51 – 67. See, also, Fiedler 1997)

Despite all this research and as early as 1995, Sandmann and Vandenberg wrote that the philosophy of leadership used in leadership development programs at the time were no longer adequate for the complexity of the problems leaders faced. They proposed that organisations in the information age were unsuccessfully trying to conduct their business using obsolete industrial age leadership theories.

That brings us to the era of transformational vs. transactional leadership. Burns (1978) argued that it was possible to distinguish between transactional and transformational leaders. Bass (1985) was concerned that Burns (1978) set transactional and transforming leaders as polar opposites. Instead, he suggested we should be looking at the way in which transactional forms can be drawn upon and transformed. The resulting transformational leadership is said to be necessary because of the more sophisticated demands made of leaders.

These theories focus on the relationship between the leader and follower. The idea emerged that transformational leaders are charismatic, inspirational, visionary and smart. Servant leadership developed in parallel at the time (Greenleaf, 1977, Stone & Patterson, 2005). Servant leaders focus on their followers and value people. It is believed that organisational goals will be achieved by facilitating the growth and wellbeing of employees and is similar in that both these theories focus on the development of employees.

Alongside these theories, the use of competence models became accepted practice. Wilcox (2012) writes about the history of competence dating its origin back 3000 years ago to civil service exams used in China at the time in selection for government jobs. As the industrial revolution came along, jobs needed certain defined skills sets with Taylor leading the thinking. (1911). The concept of competence continued to develop in management with a focus on work and employee selection and in the 1930s President Roosevelt promoted functional analyses of jobs and in 1987 the US government published guidelines for employee selection. From there national standards and skills boards developed. In the course of the evolution of the concept of competence, three main schools of competence research and practice have become influential. They are the differential- psychology approach, the educational-and-behavioural psychology approach, and the management-sciences approach (McLagan, 1997) drawing from some of the other theories discussed earlier.

More recently, with rapid technological change, globalization, diversity, inequality of opportunities, poverty, conflicts and signs of ecological distress, the Organization for Economic Co-operation and Development (OECD) launched an extensive international project in late 1997, entitled Definition and Selection of Competencies: Theoretical and Conceptual Foundations (DeSeCo), to identify key competencies for an individual to lead a successful and responsible life while facing the challenges in society (Rychen, 2004).

The next section will understand how these theories and practices are seen today in the new world of work contexts and/or what insights have been gained about the effectiveness of these theories over time through research and practice.

Critiques of Current Leadership Research and Practices

Despite the evolution of leadership and organisations, scholars and practitioners still seem to prefer to focus on standardised, predictable and observable approaches like competence, traits and behaviours rather than the more difficult, nebulous factors of mindset, ethics and adult development. There are several reasons why this is problematic in the Fourth Industrial Revolution. Snowden and Boon (2007) and Heifetz (1994) clearly spell out the differences in approaches required for leaders when dealing with simple, complicated, complex or chaotic problems. It seems many scholars and practitioners have not yet embraced this at the core of their approaches to leadership.

Oversimplified and fixed models of leadership do not acknowledge the inherent complexity of human behaviour and the context within which this behaviour occurs. (Singh, 2014). Pick up any of the popular books leadership today and you will still find a list of traits that are thought to be central to effective leadership. The main problem with using traits as a dominant approach is that it negates adult development and neuroplasticity research that believes people can develop further as leaders by supposing leaders are born with innate traits. The approach fixes effectiveness of leadership and limits the value of learning and

teaching in regard to leadership. Innate personality traits may indeed not be as fixed or influential in leadership as the theory proposes. Furthermore, trait theory fails to take situations into account that different situations may require different behaviours from leaders namely when dealing with Tame, Wicked and Critical Problems (Grint, 2008)

There are also limitations to narrow behaviour-based leadership approaches. The greatest of these are the fact, that the behaviours learnt are often not applied back into the workplace. As habits return, organisational contexts counter the new behaviours and deliberate and ongoing practice is not reinforced. This is further complicated as behaviour that works in one situation may also not be universal enough to work in another – it is simple too one-dimensional and discards the importance of mindsets and adult development (Flores, 2013).

Sadler (1997) reports that it is difficult to say style of leadership was significant in enabling one group to work better than another. Perhaps the main problem, though, was one shared with those who looked for traits (Wright 1996). Is it possible that the same style would work as well in a gang or group of friends, and in a hospital emergency room? The styles that leaders can adopt are far more affected by those they are working with, and the environment they are operating within, than had been originally thought.

Then we come to contingency theory - aside from their very general nature, there are some issues with these models which has been written with a North American bias. There is a lot of evidence to suggest cultural factors influence the way that people carry out, and respond to, different leadership styles. For example, some cultures are more individualistic, or value family as against bureaucratic models, or have very different expectations about how people address and talk with each other.

Finally, competencies so widely used in practice have also been called out for being overly reductionist and fragmented (Grugulis, 1998), overly universalistic (Grugulis, 2000), and reinforcing a mechanical approach to development (Brundrett, 2000). Bolden and

Gosling (2006) write that competencies "do not provide a sufficiently rich vocabulary for the subtle, textured, complex, embodied and highly situated mindset that is required for leadership" (p. 158). Ruderman, Claerkin and Connolly (2014) criticize the sole focus on competency, saying doing so has constrained leadership development in that it ignores leaders as whole people and does not address the need for fluid leadership in complex contexts.

Apart from the issues raised above, there are also several more general criticisms of current leadership research. Pfeffer (2016) criticises the plethora of content and practices of leadership and leadership development that are not validated and have not delivered an improvement in trust and engagement. Authors like Kupers & Weibler (2006) and Bennis (2007) raise the point that the prevailing leadership approaches are fragmented or have mutually exclusive paradigm parameters, missing a more inclusive orientation and enfoldment of leadership in complex adaptive systems and lament the fact that we are still lacking a single definition and unifying theory of leadership. They warn us not to take a purely academic view to the definition and models of leadership and urge us to treat it as an applied practice grounded in theory as we otherwise miss the complexity and enactment of leadership as a phenomenon.

Jakubik and Berazhny (2017) write that "The old ways of leading people will not work in the creative economy where the competitive advantage of organizations is founded on learning, creativity, and innovation" (p. 471) and Tshabangu (2015) writes that new trends in the business environment requires new paradigms of leadership. They write that leader-focused and ego-centric models of leadership are not fit for the knowledge and creative economies that are in the digital and virtual space, focused on new knowledge and innovation, organic and open, based on human-machine interaction and collaboration and co-creation.

Emerging Paradigms

In this section, I consider how we move forward with our thinking about leadership in the new world of work by looking at emergent theories, directions and practices. Kelly (2019) puts it thus: "We need to create a leadership that is fit for purpose for this new technological wave. This leadership is being called **Leadership 4.0** and it has evolved from previous versions of leadership" (p. 3).

Gloor (2017) and Kelly (2019) describe Leadership 4.0 as Swarm Leadership - leadership that is adaptive, emergent, connected, responsive, and collaborative. It forms part of the collective theories of leadership but it differs from shared and distributed leadership by being part of a self-organising complex adaptive system. This type of leadership is responsive - leaders responding to situations in an intentionally adaptive way.

King and Van Seters and Field (1990) propose this next era of leadership as more complex and integrated than any of the eras before calling it the **Integrative Era**. They believe new theories will be added at the same time that previous theories will be integrated and this has certainly been the case.

Veldsman and Johnson (2016) also propose an integrated future-fit model of leader capabilities in the context of the new world of work. They urge us to re-imagine at a deep level leadership in holistic, organic, integrated and dynamic way as whole person, in terms of ability, intelligence, maturity, ethics and authenticity, befitting his/ her eco-systemic relationships, all dynamically aligned simultaneously in real time to institutionalise virtuous cycles.

The most comprehensive attempt to date in defining holistic and updated leadership in an integrated model was made in 2009 when Day, Harrison & Halpin tackled the question of how holistic leadership might be developed by drawing from multiple disciplinary perspectives of leadership. In particular, they use elements of the adult development literature

(i.e., identity development, moral development, epistemic cognition, reflective judgment, critical thinking) to inform learning-based approaches to leadership (i.e., mental models, expertise, learning-from-experience, leadership development and teams). As a result, they identify three different developmental layers of leadership, and claim that leader development is "manifested ultimately in observable behaviors" (p. 176) though there are layers beneath (see Figure 1).
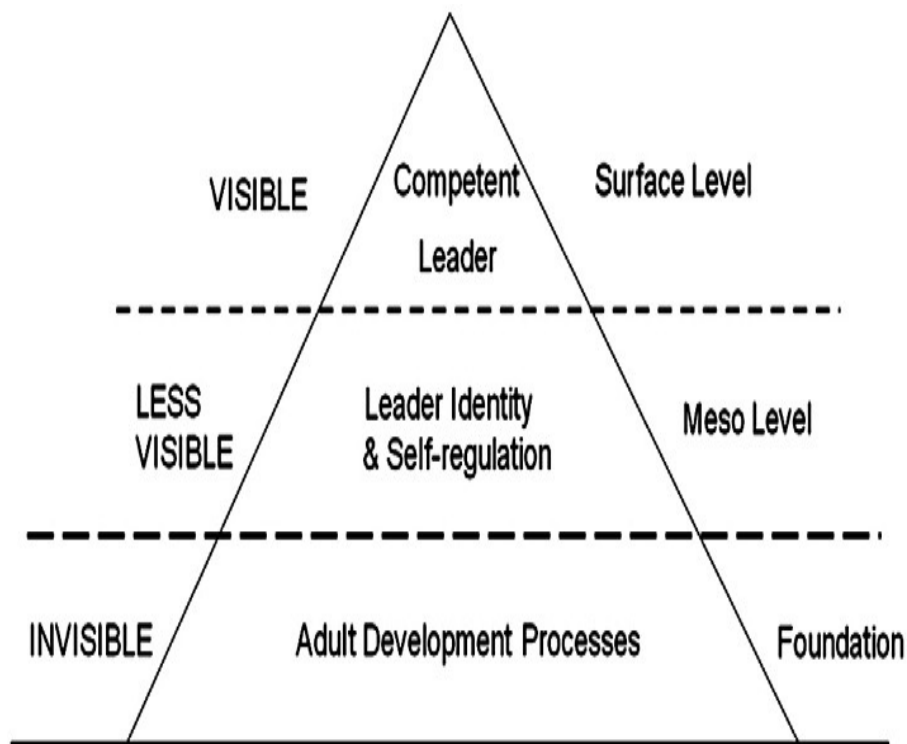
Figure 1: Day et al.: Integrated model of leadership (2009)[1]

    The layer most visible, and most overused as a single lens, to the external observer is that which gives the perception of leadership competence, namely, skills and behaviours observed in a leadership situation. Highly developed leaders are able to think about leadership in more sophisticated and complex ways through more advanced competence levels. This focus is inadequate, however, evidenced by the fact that despite the millions of dollars spent on defining, assessing and developing competencies, the return on investment remains elusive.

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Day et al. (2009) advocate a strong focus on the meso and foundation layers of leadership. The meso, less-observable processes of leader identity formation and self-regulation are critical in that they motivate and support the development of leadership skills and expertise. These processes relate to leader self-awareness.

Critically, the foundational layer of the Day et al. (2009) model refers to foundational leadership traits, motivational systems, values, attitudes, and beliefs as well as mindsets. This layer relates to the level of complexity at which a leader can work, make decisions and build relationships. Specifically, it refers to complex decision making and ethical regulation and is based on adult development processes.

The next question is whether the current attempts at building integrative models have succeeded in fully addressing the new world of work context and emerging theories and practices.

Emerging theories today emphasise context-appropriate (Goleman, 2000; Snowden and Boon, 2007, Grint, 2008 and Yukl, 2010), shared leadership models (Pearce, 2004), models of complexity leadership (Uhl-Bien and McKelvey, 2007), adaptive Leadership (Heifetz, Grashow and Linksy, 2009), ambidextrous leadership (Zacher & Rosing, 2015), augmented leadership (Turcq, 2011; Thomas,2016), digital leadership (Fisk, 2003, Prentice, 2013, Mack, 2015), e-leadership (Avolio, Kahai & Dodge, 2000) and finally Swarm Leadership (Gloor, 2017).

Theories that have been around for some time, but are increasing in importance include adult development theory (Cook-Greuter, 1985, 2004 and Dawson, 2016), levels of work, (Jaques, 1989, 1990), growth mindset (Dweck, 2008), neuro-leadership (Rock, 2009), self-awareness and self-deception (The Arbinger Institute, 2016, 2018), empathy (Prentice, 2013) and ethical leadership (Waggoner, 2010, Sweeney and Fry, 2012; Copeland, 2014),

We will now consider each of these emerging and growing theories in more depth as we

start to build towards and updated and integrated model of leadership in the new world of work.

Goleman (2000), Snowden and Boon (2007), Grint, (2008) and Yukl (2010) all argue that effective leadership is **context-appropriate** with some leadership capabilities and behaviours being more effective than others in different conditions. If we add a complexity lens, we see context as "unplanned and uncontrollable mechanisms that emerge naturally among interactive, adaptive agent acting in situations. A context is thus not given, but instead the context emerges as a result of interaction" (Uhl-Bien & Marion, 2007, p. 637).

Shared leadership unlocks multiple perspectives needed to solve more complex problems and helps with cross-boundary work. Shared leadership occurs when all members of a team are fully engaged in the leadership of the team: Shared leadership entails a simultaneous, ongoing, mutual influence process within a team, that involves the serial emergence of official as well as unofficial leaders (Pearce 2004).

Uhl-Bien and McKelvey (2007) write in their work on **Complexity leadership** that leadership is:

interactive, collaborative dynamic that produces adaptive outcomes in a social system. It originates in struggles over conflicting needs, ideas or preferences and results in alliances of people, ideas, technologies, and cooperative efforts. It is a complex dynamic and a key source of change in an organization. (p. 6)

Snowden's Cynefin framework (2007) supplements the complexity view. It helps identify the modal differences between predictable (simple and complicated) with the unpredictable (complex and chaotic). Snowden and Boon (2007) write that contemporary leadership contexts contain more and more complex decisions. Using this framework helps leaders make decisions and intervene in contextually appropriate ways.

Grint (2008) equally says that our failure as leaders in leading change might lie in our

inability to frame problems and then choose the right approach accordingly. He suggests leaders differentiate between Tame, Wicked and Critical problems. Grint defines wicked problems as: "…more complex, rather than just complicated – that is, it cannot be removed from its environment, solved, and returned without affecting the environment. Moreover, there is no clear relationship between cause and effect. Such problems are often intractable" (p. 12).

Closely related to complexity leadership is the concept of "**Adaptive Leadership**" which was introduced by Heifetz (1994) with the intention of creating a new approach to leadership in complexity. The themes emerging to date are that adaptive leaders are those who "prepare and encourage people to deal with change" (Northouse, 2016, p. 257) or as "the practice of mobilizing people to tackle through challenges and thrive" (Heifetz et al., 2009, p. 14).

Two recent new terms have emerged for leadership in complex contexts, namely "**Ambidextrous leadership**" (Zacher & Rosing, 2015). and "**Augmented Leadership**" (Turcq, 2011; Thomas, 2016).

The central idea of ambidextrous leadership is that the complexity of innovation activities needs to be matched by an equally complex leadership approach. The ambidexterity theory of leadership for innovation therefore proposes that the interaction between two complementary leadership behaviors – opening and closing behaviors – predicts individual and team innovation, such that innovation is highest when both opening and closing leadership behaviours are high. (p. 55)

Opening leadership behaviours is defined as behaviours that encourage others to do things differently and to experiment using independent thinking and acting. Closing behaviours on the other hand reduce variance in follower behaviours by taking corrective actions, setting specific guidelines and monitoring goal achievement. The combination of these leadership behaviours lead to successful innovation and change (Zacher & Rosing, 2015).

Augmented leadership harnesses the human in the digital age based on the core premise that technology is elevating people's potential. This causes shifts in leadership responsibilities and their abilities in using data effectively and driving customer and employee experiences as central leadership activities as machines enable people to focus on their creativity and the human-centric elements of their jobs (PageExecutive, 2019).

In parallel, **Digital Leadership** has become a theme by itself in research. Bonnet and Nandan (2011) state that "digital transformation is about leadership" (p. 10). Wilson III (2004) describes "digital leadership" as leadership taking place in the main sectors of the knowledge society, i.e. computing, communication, content and multi-media, whereas "leading in the digital age" is a more inclusive conceptualisation that takes place in any type of sector or institution transitioning into a more knowledge-focused society.

In line with the context-appropriate theory of leadership, Jakubik and Berazhny (2017) write that digital transformation is a long neglected contextual factor of leadership. This new breed of leaders will work in a digital environment, where communication, science, thinking and reasoning, problem solving, and self-discipline will be important (Mack, 2015). Similarly, leaders in the digital era should encourage others, have different perspectives, be oriented toward the future, try new approaches, be innovative, act differently, learn and unlearn, and have empathy (Prentice, 2013).

Connected to Digital leadership is the concept of **e-leadership**. Avolio, Kahai and Dodge (2000) defined e-leadership as "a social influence process mediated by Advanced Information Technology (AIT) to produce a change in attitudes, feelings, thinking, behaviour, and/or performance with individuals, groups and/or organizations" (p. 617).

Foundational Theories for Complexity to Support the Attainment of Leadership 4.0

In order to support the development of these new ways of leading, there are fundamental theories that need to be emphasised in an integrated model of leadership 4.0 to create the

conditions within which leaders can take on these new paradigms and behaviours even though some are not necessarily emergent.

Firstly, how humans change and develop as adults is of fundamental importance to leadership development and has been largely ignored in most accounts covering the evolution of leadership. Over thirty years ago, Bartunek, Gordon, & Weathersby (1983) in the Academy of Management Review advocated for the use of **adult developmental** stage theories as the ability to see and understand organizations from multiple perspectives was a prerequisite to working in increased complexity. As a result of theirs and the efforts and numerous other scholars, the field of developmentalism/adult/vertical development theory gained significance in leadership models and development.

Reams (2014) described the diverse streams of thought that have emerged in adult developmental work over the years, namely ego and skills-based models. The ego theories originate from the work of Loevinger (1976) and has been developed further by Cook-Greuter (1985). At the same time Kegan's (1982) theory of adult development examines and describes the way humans grow and change over the course of their lives. His theory is based on his ideas of "transformation" to qualitatively different stages of meaning making. These theories describe ego as having a centre of gravity. The second group of theories are domain theories focused on skill development.

In terms of ego theory, Loevinger's (1976) work developed a framework of ego development a holistic construct representing the person's frame of reference that is imposed on intrapersonal and interpersonal experiences to create meaning. Cook-Greuter (2004) built further on the work of Loevinger (1976) with a more rigorous definition and measurement of later stages. Cook-Greuter (Dec, 2013), describes the nine levels of vertical growth and meaning making of ego development theory (adding to Loevinger's eight). She describes human development as a spiral that broadens and contains an increasing number of loops.

Development can occur in both horizontal and vertical directions.

Kegan (1982) argued that the method by which individuals understand reality develops over time and proposed that the development of an individual occurs in measurable qualitative shifts in perceptions which direct how a person makes meaning.

In terms of the skills theories of adult development, Dawson and Heikinnen (2009) identified clear within-level differences in leadership decision making using The Lectical Assessment System and more specifically, the LDMA – the Lectical Decision Making Assessment – assessing perspective taking, argumentation and the decision-making process based on dynamic skill theory. Fischer and Immordio Yan (2002) describe the dynamic process of skill construction as "involving some change in memory across domains, and more generally, processes of cognitive development from one strand to another in a developmental web. Higher level skills are hierarchically built up from earlier skills through integration and differentiation" (p. 10).

Levels of work aligns well with the skills approach to adult development and have been used in recent years to augment and integrate stages of adult development. Mumford et al. (2007) write that leadership skills are often described as stratified by organisational level and as a complex of multiple categories – they call this a "strataplex." They believe that this notion of a strataplex helps us to better describe and show how complex leadership is as a phenomenon. They show the strataplex as having a foundational level of cognitive skills, complemented by a set of interpersonal skills, then what they call "business skills" and finally, strategic skills (Figure 2).
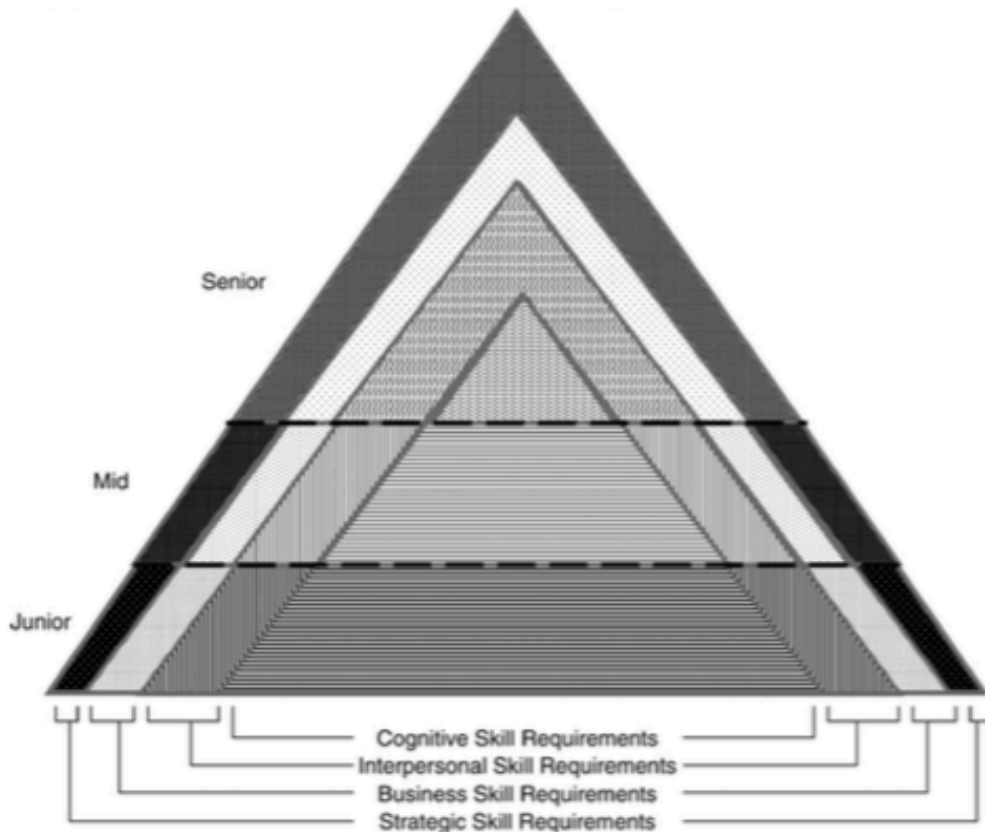
Figure 2: Leadership strataplex based on levels of work.[2]

The work of Jacobs and Jaques (1987) helps us understand the strataplex. The model is based on cognitive ability – the quality of thinking which defines the outer limit of the horizon of intention – an actual mental processing ability to apprehend the future, understand the complexity associated with bringing it into being and exercising the judgement and discretion in overcoming obstacles on the way to that horizon. Their theory of Requisite Organization Theory (RO) is based on three core concepts of: 1) Adaptation to the changing environment, 2) Requisite frames of reference for the level of decision making and discretion required and 3) Information acquisition and usage in order to cope with uncertainty. Later levels (IV, V and VI) are proposed as more appropriate for complex, ambiguous environments.

Dweck (2008) describes **growth mindset**, as one's ability to thrive on challenge and see

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failure as a springboard for growth and for stretching our existing abilities and behaviours. With the emphasis on experimenting and learning in the new world of work and the need to continually upgrade mindsets, knowledge and skills, leaders find themselves on a continuous shifting carpet (Dweck, 2008).

Caniels et al. (2017) write that the growth mindset is a prerequisite to develop leaders and others as the fundamental starting point has got to be the belief that you and others can grow and develop continually. Berger (2015) also writes in a Harvard Business Review article on Curiosity that a 2015 PWC survey of more than a thousand CEOs on critical leadership traits and mindsets for the future, "curiosity" and "open mindedness" are becoming increasingly fundamental.

Growth mindset and **neuro-leadership** work hand in hand. Dispenza (2009) writes that we are capable of flexibility, adaptability, and a neuroplasticity that allows us to reformulate and re-pattern our neural connections to produce the kind of behaviours that we want. This concept is called neuroplasticity - the brain alters itself every time we learn something new. This is critical for adaptive leadership and lifelong learning and it is critical that leaders understand how their and others' brains function and how to work with their brain to achieve positive outcomes.

Neuroscience is also important for effective relationships and collaboration. Leaders with positive working relationships with others trigger areas in the brain associated with exciting attention, activating the social system, and other regions associated with "approach" relationships. (Kelly, K., 2014).

All of the emergent practices still need to be underpinned by high levels of **self-awareness** (Condon, 2011; Ashley and Reister-Palmon, 2012; Axelrod, 2012), which despite all the leadership development programs that have been undertaken, is still a very rare behaviour. When leaders lack self-awareness, they often overindulge in toxic or undesirable behaviours

— because they have no filter or ability to contain themselves. Through self-awareness, we can lead ourselves with authenticity and integrity — and in turn better lead others and our organisations, but psychological research suggests that there is less than 10% overlap between people's actual and self-perceived competence. People are mostly not as adept as they think they are (The Arbinger Institute, 2016).

There is a decisive moment where the other important behaviour of leadership in the new world of work, **empathy**, comes into play (Fontaine, 2004; Gentry et al., 2016). This happens when we can imagine what another person's needs and feelings might be and we have the choice to shift our focus to the other person and honour their unique experience. Fontaine (2004) argues that leaders in the Army are better prepared to win in a future operating environment shaped by complexity and speed of human interaction by using empathetic mindsets. Gentry et al. (2016) write that leaders today need to be more person-focused and able to work effectively across cultures.

Together with self-awareness and empathy, consistent **ethics and morals** lead to an increase in leadership effectiveness and trust. According to Sweeney and Fry (2012), the literature suggests that a leader's core values and beliefs are the foundation of their character and are the cognitive structures that influence the leader's awareness of ethical and moral issues, judgement and behaviour. The degree to which a leader can integrate these values and beliefs into their identity, influences the consistency of their moral and ethical behaviour. Leaders need to be able to work in different situational realities in order to apply and maintain their values and beliefs effectively.

Giles (2016) conducted a survey in 2016 asking 195 leaders about the top 15 leadership competencies in the new world of work, reveals the call from reality for more emphasis on high ethical and moral standards and the creation of safe and trusting environments and is therefore important to be called out as a distinct layer and foundation of leadership 4.0. Until

recently, ethics and morals of leaders have been considered as philosophical, however with the increasing number of ethical leadership failures and the negative impact this has had, the dimensions of ethics and morality have been proposed to be considered as critical capabilities and mindsets of exemplary leaders (Copeland, 2014).

It takes courage to be a leader in an ever complex and fast changing environment. Sekerka and Bagozzi (2007) defined moral courage as the ability to use inner principles to do what is good for others, regardless of threat to self, as a matter of practice. Duffield and McCuen (2000) discuss the notion of ethical maturing, saying: "The ethical maturity of a professional is important because it reflects how the individual approaches a dilemma that deals with values" (p. 79). These authors define ethical maturity as the ability to deal with complex dilemmas that involve competing values.

We will now look at the themes emerging from the analysis of the literature and interviews to understand better the requirements and direction of leadership in the new world of work 4.0.

Results from the Literature Review and Interviews

Analysis of Literature

After analysing the evolution of organisations, work and leadership, considering the criticisms of current approaches and investigating the emerging and enabling trends of leadership, it is clear that leadership has evolved in the following way to fit to the changing environment as shown in Figure 3 below. Early stage leadership is what Kelly (2019) would call Leadership 1.0, with 2.0 and 3.0 part of the evolving paradigms dominated by behavioural, cognitive (competence based learning) and horizontal development. Finally, with the pace of technological change and disruption, Leadership 4.0 emerges as collaborative, holistic, digital, social and complex.

Leadership 1.0	Leadership 2.0 and 3.0	Leadership 4.0
Hero leadership Trait theory Command and control Competencies Job security Hierarchy Narrow tasks and roles Office bound Traditional Socialised	Visionary Charismatic Transformational Behavioural Conceptual redundancy Horizontal Competencies Empowerment Culture Modern Socialised Situational	Integrative Holistic, deep Eco systemic Lifelong Complex Social Context Neuro plasticity Horizontal and vertical Agile and adaptive Broad roles Scaling leadership Digital Turbulent Technology Virtual and flexible Self management Post-modern Self authoring Journeys

Figure 3: Evolution of leadership from a research and practice viewpoint

Interviews

It is also interesting to consider how far organisations and approaches have evolved in reality. In addition to the literature survey, I interviewed 22 thought leaders and leadership executives in 2017 and asked three questions about their current views and approaches to leadership.

The first question was how they saw the challenges leadership faces, the second was how they define leadership and the third was what approach and model they are using for developing leadership. We used the raw data from the interviews to create three word clouds and each will be shown and discussed below with extracts from the interviews to illuminate the findings. I start with the findings of the first question namely: What have been the biggest changes and challenges for you in leadership over the last few years? The resultant word cloud is shown in Figure 4 below.

Figure 4: The combined views of 22 thought leaders on the changes and challenges leaders face in the new world of work

The key themes that emerge from the word cloud data are that the challenges leaders face are mainly related to the *complexity* they are facing in the *increasing new* and *changing environment, context, organisations, work* and *world.* Furthermore, these challenges are *global*. It becomes clear that respondents believe leaders are *struggling* as *more* is being asked from them.

Other themes relate to some of the challenges themselves, namely the *dynamic and ambiguous* nature of the challenges and *growing expectations*, the *public* nature of everything they do, the level of *transformation* required of them and their organisations, the level of ongoing *development* required to stay relevant, the impact of *AI* and *digital* and the amount of *adaptive problems/agile approaches* they have to deal with which feel at times *unrealistic*.

Behaviours and consequences of leaders feeling overwhelmed seem to manifest in *toxic* behaviours, the *seduction* of *power* , feelings of being *isolated* and a narrow focus on

technical problems. There is an increasing cry for a more *human* and *people* centered approach and for leaders to work on their *identity* as part of this.

Here are some quotes from the interviewees to illustrate these themes further:

"We have shifted from the hero, male leader that tells the way to a growing acceptance of complexity and diversity and a change in power and identity as a result. People are struggling with this new world of work."

"Organisations are fragmented, less hierarchical. Things are more transparent. Leaders are struggling to deal with paradoxes. They also struggle to deal with different contexts."

"Leaders are struggling with the level of complexity they are facing and silos are preventing them from changing. They are looking through old lenses when solving problems. There is so much fake news, they are not good at cutting through the noise."

"The complexity gap of what the environment requires and what leaders can deliver has outstripped leaders' abilities to make sense. Developing great leaders take time and organisations are not patient enough for outcomes or willing to invest in the long term."

My second question asked the interviewees how they would define effective leadership. The word cloud is shown below in Figure 5.

Figure 5: The combined views of 22 thought leaders on an updated definition of effective leadership

The emerging themes and insight from this word cloud is that effective leaders in the current context are seen as a group of leaders – *shared* leadership - who can make sense of the new *context* and guide others through *turbulence, complexity and uncertainty skilfully* to *create* and *construct future-fit and sustainable organisations* and *people*.

These leaders *inspire, coach, influence, support* and *serve*. They are *adaptive, collaborative* and *decisive* but also regularly *reflect-in-action* how their behaviours, *beliefs*, actions and decisions affect others and *outcomes*. They use *empathy* when dealing with others.

They are able to work *inter-organisationally* and understand the *dynamic* nature of work, people and organisations. *Diversity* and *Community* are priorities for them.

They are *lifelong self-managed learners* that also work continually on their *identity* and *development* as a leader. They are *consistent* and *values* driven.

Key quotes from the interviews that illustrate some of these themes include:

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"Effective leadership helps navigate the community or organisation for which the leaders has responsibility through the challenges which turbulence creates, in a direction and manner that will support the ability to survive and thrive."

"Leadership builds the capacity and virtue of the organization to realize current goals and objectives but also to learn, adapt, and thrive in the face of change."

"Leaders create sustainable outcomes, build trust, create significance and meaningful experiences for others, who can create shared beliefs and get people to collaborate."

Finally, the last question asked was a description of the leadership development model the organisation or individual was using. The word cloud results are shown below in Figure 6.
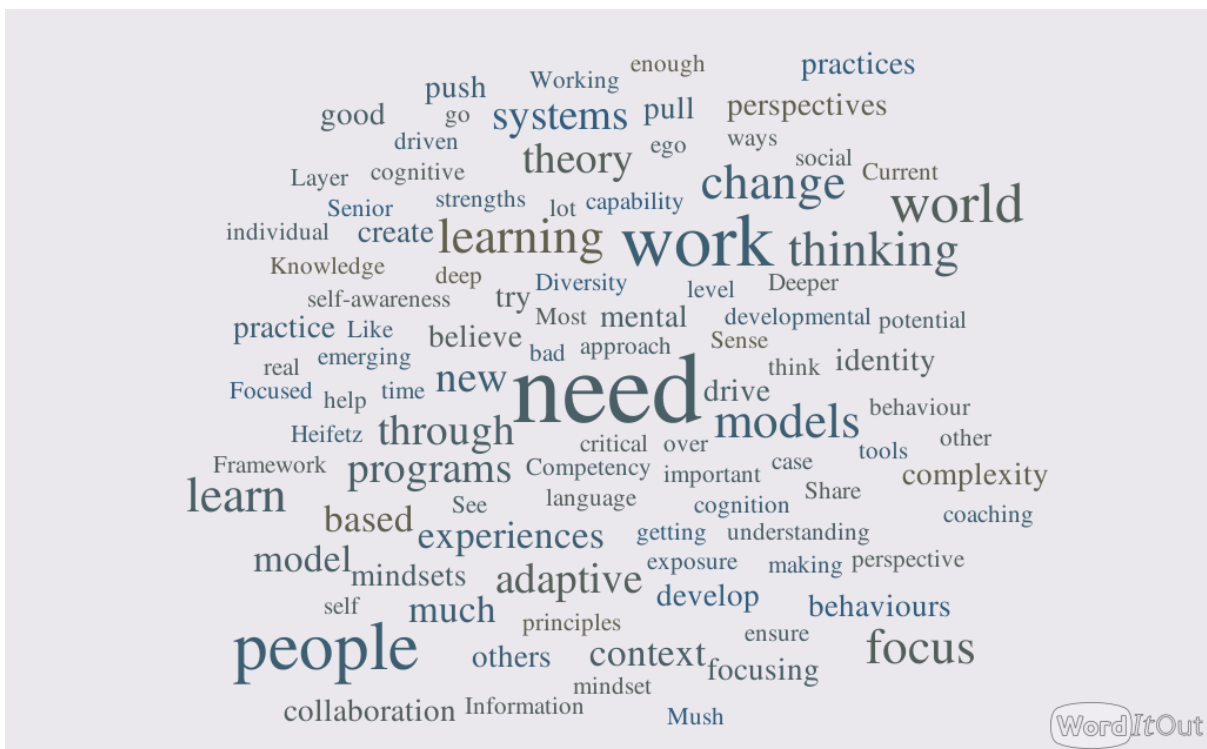
Figure 6. The combined view of 22 thought leaders on their current approach to leadership development

The themes from this word cloud were that leadership learning, although still *theory* and *capability focused,* has become a lot more *needs* focused, *experiential*, *collaborative* and *context* specific. There is a greater emphasis on the development of leader *identity* and *behaviour*, understanding of own and others' *diverse perspectives, mindsets and experiences,*

mental processes and *thinking*.

Self-awareness and *adaptiveness* is called out as an important developmental focus, and in addition, the ability to deal with *complexity* and take a *systems* view is developed. There is a focus on unlearning negative *ego* behaviours and a move away from *competency* approaches. There is a view that leadership is a *practice*.

Overall there is a strong *developmental* focus and a much *deeper* level of learning.

Quotes that illustrate these themes further include:

"Leadership is about OPENING UP SPACES. Leaders either enliven and enable systems or close them down."

"We draw from Kegan's mindsets work and Adaptive leadership theory of Heifetz. Leadership is about influencing and mobilizing people. We use mindfulness, SCARF, Neuro, mental maps. People are not rational."

"Behaviours are important. Competency models are not effective. It does not focus on behaviour and habit change. To change we need to practice, practice, practice."

Now that we understand better what the themes are that show us the direction and requirements of Leadership in the new world of work 4.0, we can start to unpack and build the model of Leadership 4.0.

Towards Leadership 4.0

Day et al.'s (2009) model provides us with a strong starting point to develop an updated and integrated model for Leadership 4.0 but based on my insights gained from the literature review and interviews with thought leaders about current changes in practice, it misses critical components and details needed to operationalise it.

I argue, based on my research – the literature review and the interviews - that context, levels of work, underpinning mindsets and morals and ethics need to be added to enhance the model.

The integrated meta-model structure I propose is a four-layer model set in context and eco system resting on a growth mindset, curiosity and learning agility.

The additions of the components discussed above to the Day et al. (2009) model are shown below in Figure 7.
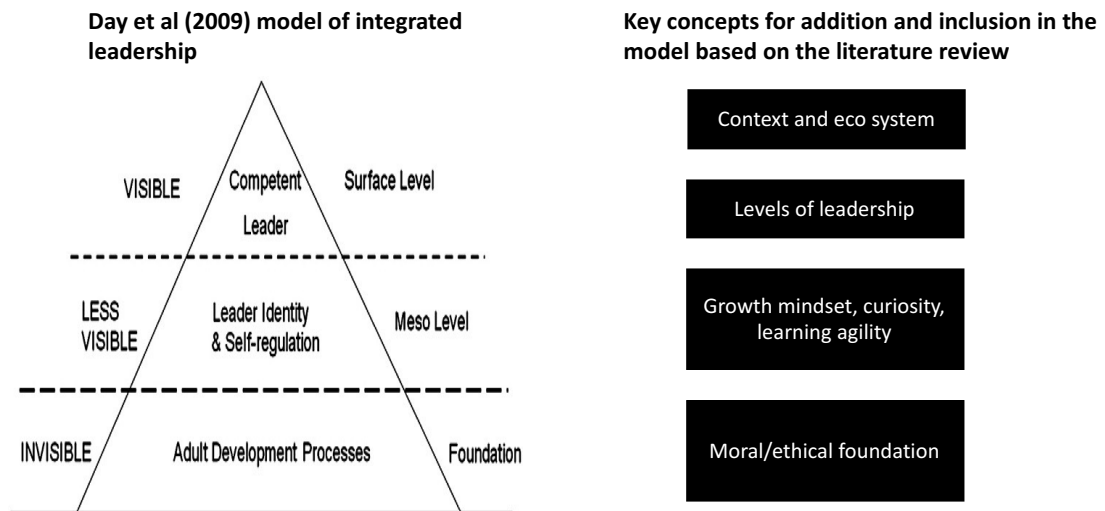
Figure 7: Additions proposed to the Day et al. model (2009)

With these additions added, I propose an integrative framework for Leadership 4.0 that has four layers and is enabled by mindsets as well as sits in the context of the leadership eco system and the level of work leaders are leading from. This is shown in Figure 8 below.

Proposed framework for an updated and integrated leadership framework
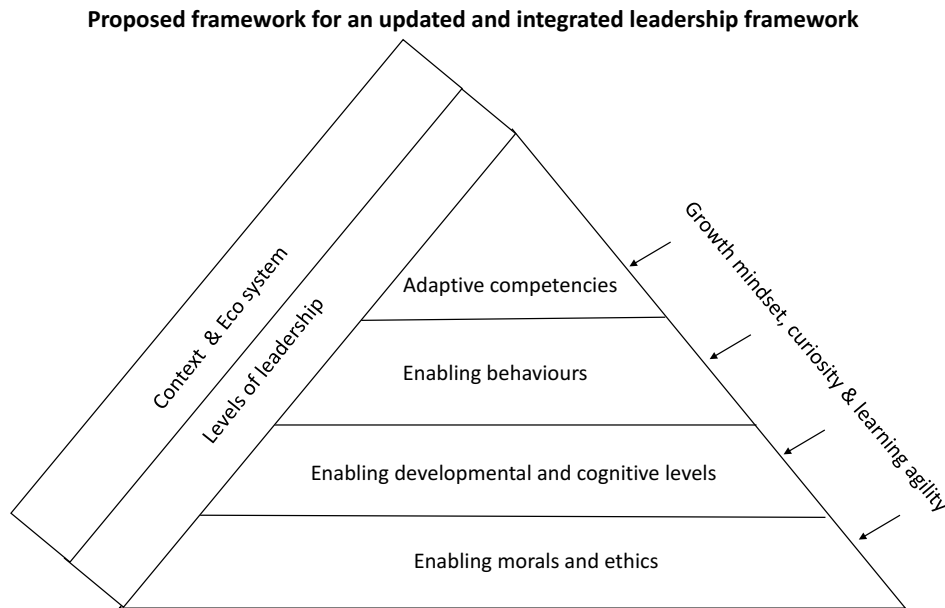
Figure 8: Expanded Day et al. model for Leadership 4.0

This model aims to respond to the call for an Integrative mode of leadership in the new world of work that takes into account insights from both research as well as from practitioners in the field of leadership.

Conclusion

I started this chapter by describing the evolution of organisations and work and how that affects the effectiveness of the leadership approaches at the time. I identified key gaps in the evolutionary studies and called out the need for a new era of leadership to be integrative and holistic as is required by the complexity of the environment leaders operate in.

Once I identified the gaps and the evolutionary elements that need to make up an integrative model, I looked at the work done to date to develop such models. I proceeded to primarily build off the seminal work done by Day et al. (2009) in integrating adult development with behavioural and competency approaches to develop an updated and integrated meta model for leadership in the new world of work. I propose an additional layer below adult development namely an ethical/moral layer and we propose the embedding of the

layers in context and eco-system, with the understanding of level differences as well as the pre-requisite mindsets of growth, curiosity and learning agility.

I conclude that leadership 4.0 is integrative, complex and multi-layered. There is a need for lifelong horizontal and vertical development journeys using adult development theory, virtuous cycles and neuroplasticity as core theories of continuous growth. Leadership needs to be scaled to enable work in new contexts of digital, virtual and flexible environments that are in constant flux with wicked problems that can only be solved collectively.

Contribution and Limitations

I believe that the outcome of this research contributes to both theory and practice in a substantial way. By means of my empirical research we are able to further contribute to the conceptualization of an updated and integrated model of leadership in the new world of work. This is useful from both and academic and practitioner perspective.

As I took an interpretative stance in my research, the interpretation of data and empirical findings was inevitable, hence, could not be prevented completely. I am thus further aware that the outcome of my study might not be as objective as research following other research philosophies. I am also aware that due to the chosen sampling size and method, the empirical findings cannot be generalized.

It is hoped that this model will create a further conversations and impulse for research into effective leadership in the new world of work and a more critical selection of leadership models and theories as a basis of assessment and development of leaders able to lead in the increased complexity and ambiguity facing their organisations and institutions.

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4.3 Summary of Chapter Contribution

Never before have leaders been challenged with so much change and complexity – the FoW, Industry 4.0 and disruptive Black Swan events like COVID-19. It was timely to review old practices no longer relevant in this context.

The research showed that there is a significant proliferation of leadership theories and that most of the existing leadership models underestimate the importance of leader context. The development of an integrated, evidence-based model of leadership in the context of the FoW will help researchers and practitioners assess and pivot their current approaches to ensure we better prepare leaders for this complex and uncertain future.

5 Leadership Development (LD) for the Future of Work (FoW): A Contextual and Processual Perspective

This article was submitted to *Journal of Management Inquiry.*

A brief introduction to the paper is provided next.

5.1 Introduction

This journal article addresses leadership development (LD) in the context of the Future of Work (FoW). It follows the updated model of leadership in the context of the FoW. The scoping review delineated three context-detached themes within LD (LD) research, namely, competency biased, individual leader-centric, and impact deficient.

On the basis of data triangulation from the scoping review and subsequent interviews with 22 LD thought leaders and practitioners, I developed a contextually nuanced, processual LD model comprising six context-embedded dimensions (environmental, developmental, relational, processual, temporal and technological).

5.2 Journal Article 1

Leadership Development (LD) for the Future of Work (FoW): A Contextual and

Processual Perspective

ABSTRACT

Ignoring how the accelerating rate and magnitude of change reframes the future of work (FoW) may contribute to leadership development (LD) that equips leaders to operate in a context that no longer exists. Our scoping review of the LD articles published in the last two decades (2000-2020) suggests that most of the existing LD models underestimate the importance and nuance of current and emerging contexts. On the basis of data triangulation from a scoping review and subsequent interviews with twenty-two LD thought leaders and practitioners, we propose a contextual and processual LD model comprising six context-embedded dimensions (i.e., environmental, developmental, relational, pedagogical, temporal and technological) to address this issue. By highlighting the nuanced context of the FoW, the current research extends the current understanding of LD and contributes to the practice of leadership assessment, development, and selection in the organisation.

Leadership Development (LD) for the Future of Work (FoW): A Contextual and Processual Perspective

Within the burgeoning leadership training and development industry, estimated at $366 billion per annum (Vogel, Reichard, Batistic and Cerne, 2020), LD continues to be an organisational strategic imperative (Day and Dragoni, 2015; McCauley and Palus, 2020). Since leadership does not exist in a vacuum, the importance of current and emerging context in LD is absolutely essential to ensure leaders have the right contextual map to navigate the organization through strategic alignment and renewal (Day, Riggio, Tan and Conger, 2021), particularly given the accelerating rate and magnitude of volatility, uncertainty, complexity, and ambiguity (i.e., the VUCA world) (Bevan and Gitsham 2009; Hazy and Uhl-Bien, 2012; Kovalenko and Kovalenko, 2019; Stiehm and Townsend, 2002). Without a deeper and richer understanding of this disruptive context, leaders will continue to struggle to develop a more robust capacity to reinvent their organisations' business models and processes (Holden and Roberts, 2004; McCann, Morris and Hassard, 2008; Worrall and Cooper, 2004).

The last two decades have seen a few notable reviews of the LD field (e.g., Day et al., 2021; Day, Fleenor, Atwater, Sturm and McKee, 2014; Day and Dragoni, 2015; Edwards and Turnbull, 2013; Mabey, 2013; Lacerenza, Reyes, Marlow et al., 2017; Meuser, Gardner, Dinh and Hu, 2016; Rhodes and Brundrett, 2009). As noted by Vogel et al. (2020), they share a common characteristic in relation to scope, in that each is deliberately focused on a specific level of rigor, theory, context, journal, or process. In contrast, our scoping review focuses on the LD articles that are context-informed (i.e., the FoW), and in doing so we address the call to move away from standardised and rigid approaches in developing leaders (e.g., the KSA competency framework – knowledge, skill, ability delivered as face to face, short term interventions) (Day and Sin, 2011).

With a focus on context and its relevance to LD, the current study has the following three

overarching questions: (1) to what extent do current LD models reflect the current and emerging context within which leadership occurs?, (2) what are the dimensions of LD that best represent the FoW? and (3) what directions could research on contextually nuanced, processual LD take? The remainder of the paper is structured into three main sections that sequentially correspond to these three questions.

Current LD Research and Practice

We undertook a scoping review of the literature to map the existing literature in the field of LD in context in terms of its volume, nature, and characteristics (Arksey and O'Malley, 2005), and to ascertain the extent to which current LD models have considered context as an important enabler of effective LD fit for the future of work. Since the goal was not to produce a meta-analysis or systematic review, rather than conducting an exhaustive review of the entire field, we deliberately focused on the articles that have an overt focus on LD for the FoW. The scoping review covers the last two decades of LD research (2000 – 2020). The following keywords were used for the article search: *leader, leadership, leader/leadership development, future of work, leader/leadership development models, context* and *complexity*. The search uncovered 3,811 articles in ScienceDirect, 559 in Scopus, and 117 in the Web of Science database. After removing articles that were too narrow in their focus (e.g., country-specific or industry-specific focus), we had 65 articles published in journals with an impact factor (IF) greater than 2.0. The breakdown of these articles are shown in Table 1.

Table 1. Context-driven LD articles published in journals with IF > 2

Journal	Number of articles	Impact Factor
The Leadership Quarterly	30	10.517
Harvard Business Review	3	5.694
Academy of Management	7	7.571
Human Resource Development Quarterly	2	3.688

Journal	Number of articles	Impact Factor
Journal of Applied Psychology	2	5.851
Journal of Management	2	8.88
Corporate Governance	2	3.28
Human Relations	2	5.03
International Journal of Management, World Education, Journal of Management Studies, Educational Administration Quarterly, Journal of Leadership and Organizational Studies, Management Communication Quarterly, Educational Management & Administration, Human Resource Planning, Management Learning, Educational Review, Research in Organizational Behavior, Organization Studies, Journal of Management Development, Journal of Organizational Behaviour, Leadership and Organizational Development Journal	1 each (15 in total)	➢ 2
TOTAL	**65**	

Not surprisingly our scoping review confirms that current approaches cannot sufficiently equip leaders with the leadership 'mindsets and practices' (an emerging term used by innovative LD practitioners) needed for the current and emerging future work context (Hotho and Dowling, 2010). Importantly, findings from our scoping review suggest that the current LD approaches are context-detached in the following three ways: an overemphasis on competencies, an overemphasis on individual leaders, and an underemphasis on evaluation.

Overemphasis on Leadership Competencies

Many LD programs focus on prescribing an ideal leader whose identity is defined by their mastery of specific set of leadership competencies (Carroll, Levy and Richmond, 2008; Day, 2000; Gagnon and Collinson, 2014; Gottfredson and Reina, 2020; James, 2011; McNulty, 2017; Salicru, 2017). LD scholars and practitioners therefore "atomize the complex construct of leadership into discrete, seemingly concrete, variables" (Day et al. 2021, p.4).

An extensive qualitative review of leadership theory across 10 top-tier academic

publishing outlets between 2000-2012 found that competencies relevant to neo-charismatic approach to leadership still received the most attention from scholars (Dinh, Lord, Gardner et al., 2014). With a skewed priority on knowledge, skills and abilities (KSA) and 'surface structure skills' (Lord and Hall, 2005, p.592), deeper and complex issues that are more salient for the long-term development of effective leaders such as adult development, leader identity, and leader mindsets are not equally investigated (DeRue and Myers, 2014).

These inherently functionalist approaches are too simplistic a foundation for LD (Grint, 2007; Larsson, Homberg and Kempster, 2020). In reality, it has created a generation of leaders who are ill-equipped to deal with situations that are replete with complex and even chaotic challenges (Vince and Pedler, 2018). Kennedy, Carroll and Francoeur (2013) write that new ways of thinking about leadership as emergent, relational and collective needs to shift paradigms of LD – moving from predominantly building skills to working with evolution of mindsets.

Most importantly, Carroll et al. (2008) highlight that the competency approach transposes context as it represents individual actors as acting in isolation of others and that competencies will be relevant in whatever constitutes the future. Given significant differences in the context leaders operate, one-size-fits-all, programmatic approaches that focus solely on competencies are definitely inadequate (Bligh, 2006; Gibson, 2016; Martin and Ernst, 2005; Osborn, Hunt and Jauch, 2002; Story, 2004).

Overemphasis on Individual Leaders

Closely intertwined with the overemphasis on leadership competencies is the focus on individual 'leader' development (Carroll et al., 2008; Carroll and Levy, 2010; DeRue and Myers, 2014; Lord and Hall, 2005; Probert and Turnbull James, 2011; Vogel et al. 2020), relative to 'leadership' development (Day et al., 2014). Drath, McCauley and Palus (2008) write that most leadership scholars focus on leaders as individuals and overstate their

influence on the attainment of organisational goals. 'Leader development' focuses on the non-systemic, individual-centered development, which is insufficient for a complex and interconnected context. 'Leadership development' (LD) is a broader and collective framework in which leaders are developed in context and in relationship with others (Dalakoura, 2009). A review of LD studies between the 1950s and 1980s confirms such a leader-centric orientation, with 82% of the studies showing a preoccupation with enhancing the qualities of individual leaders (Mabey, 2013).

Underemphasis on Evaluation

LD initiatives need to be situated in a fitting context, and as the context continually evolves, it follows that LD also needs to be evaluated and adapted accordingly. There are however very few comprehensive models of LD evaluation practice, particularly those that are iterative in nature (Avolio, Avey and Quisenberry, 2010; Clarke, 2012; Day et al., 2021; Gentry and Martineau, 2010; Richard, Elwood and Katsioloudes, 2014; West-Burnham and Koren, 2014).

A review of the leadership intervention literature from the last hundred years only produced 201 articles on studies examining the impact of leadership interventions, and less than half were focused on LD (Avolio and Luthans, 2006). A further review of 200 lab and field leadership intervention studies found that overall the interventions produced a 66 percent probability of achieving a positive outcome versus a 50-50 random effect for treatment participants, but this varied when moderators were assessed such as type of leadership theory used (Avolio, Riechard, Hannah, Walumba and Chan, 2009).

There is an opportunity to provide more emphasis on evaluation of LD programs. As Moldoveanu and Narayandas (2019) write in the Harvard Business Review, leadership developers will need to "significantly rethink and redesign their current offerings to match particular capabilities for creating teachable and learnable content and for tracking user-

specific outcomes". (p. 48).

Identification of LD Dimensions for the FoW

We have thus far delineated on the basis of our scoping review the three context-detached themes within LD research, namely, competency biased, individual leader-centric, and non-adaptive. Whilst most of these themes have been identified before, few attempts have been made to develop LD frameworks to overcome these issues holistically.

Subsequent to the scoping review, we therefore further conducted semi-structured interviews using judgment sampling (Harrell and Bradley, 2009). The interviews were conducted with twenty-two LD scholars and practitioners across different industries and organisational sizes from Saudi Arabia, Australia, the USA, Canada, South Africa, Norway, the Netherlands and England. Each participant had at least fifteen years' experience in the LD field. Eight of them are female. In terms of organisational roles, the group includes two CEOs, three global LD heads, eight academics who also work as practitioners, and nine consultants who work on large scale LD programs. The interviews lasted between 45 and 75 minutes. The interview data were analysed using NVivo12 using a set of codes developed from the literature to identify the meaningful segments of text (DeNardo and Levers, 2002; Basit 2003).

The themes identified in the scoping review and interview themes were triangulated in order to develop a final set of contextual parameters that form the basis of a contextually nuanced, processual LD model. The triangulation yielded the following six context-based dimensions – environmental, developmental, relational, pedagogical temporal and technological (see Table 2). While the interviewees only mentioned in passing the technological dimension, we decided to include it given its prevalence in our scoping review and the changing context of remote and hybrid working. A brief delineation of these six themes is outlined next.

Table 2. Overlapping themes between the scoping review and interviews of LD in the FoW context

Contextual Dimensions	Scoping review themes	Interview themes
Environmental context: Why	Embedded in context and messy reality, iterative and evolving	Embedded in a complex context and messy problems
Developmental context: What	Development based on adult and vertical development	Based on adult development
Relational context: Who	A focus on collective AND individual development	Collaborative and social
Pedagogical context: How	Transformative, constructive learning pedagogy used – immersion, experience, reflection and practice	Experiential and reflective learning and practice.
Temporal context: When	Co-designed lifelong learning journeys that are evaluated, tracked and adjusted in real time.	Lifelong development journeys
Technological context: Where	A blended, virtual and digital approach	

Environmental Context: Why

The environmental context highlights that leaders' work is embedded in contexts that are complex and 'messy' (i.e., many unexpected or unknown problems with potentially significant effects, if not properly dealt with). It addresses the 'why' of LD, which must reflect leadership requirements for the future it desires, which continues to evolve (Burge and McCall, 2015; Hazy and Uhl-Bien, 2012; James and Burgoyne, 2001; Probert and Turnbull James, 2011; Uhl-Bien and Marion, 2009; Wiley, 2019). One of the interviewees highlighted the need for of LD practitioners to cultivate "*a deep understanding of the context and then create a space for learning" (Participant #7).* The importance of context is reflected in a further remark made by another study participant:

> *Leaders are struggling with the level of complexity they are facing and silos are*
>
> *preventing them from changing. They are looking through old lenses when solving*

problems. The environment has become complex and we need to tackle it differently.

(Participant #13)

Developmental Context: What

Developmental context refers to holistic developmental needs (and the need for more complex sense making) of the LD participants. The emergence of mindsets in LD is underpinned by several developmental approaches: the shift from hero leaders to leadership as a process, the move towards a more collaborative understanding of leadership, the introduction of complexity into leadership and the emphasis and the shift from competencies to mindsets (Jeanes, 2021).

As such, it focuses more on vertical rather than horizontal LD. Horizontal development refers to the addition of more knowledge, skills, and competencies –which is the current dominant approach and content of LD. In contrast, vertical development refers to advancement in a person's underlying structure of cognitive complexity or their thinking capability (Cook-Greuter, 2004; Gottfredson and Reina, 2020; Jones, Chesley and Egan, 2020; Petrie, 2014). The vertical dimension highlights the importance of the adult development approach, acknowledging multiple levels and dimensions that transform dynamically throughout a lifetime (Hoare, 2006, 2011).

The preference towards adaptive/complex and adult development/vertical development over and above functionalist, competence approaches to LD is reflected in our interview findings. One participant stated that *"the emerging construct of complexity theory, from which complex adaptive systems theory has evolved, embraces such a shift in metaphor."* *(Participant#2)*. Interviewees criticised the functionalist, competence approach being used widely in LD, incapable of creating deep behavioural and habit change, as the following comment suggests:.

Competency approaches do not work for senior leaders. Most HR leaders and

organizational psychologists have spent too much time focusing on the individual because of their training, but leadership is intangible and happens in a context and system. Leaders need higher order thinking and behaviours in the new world of work. (Participant#18)

Relational Context: Who

The relational context describes 'who' should be the focus of LD. It describes the need for collective and social development balanced with individual hyper-personalised learning to ensure individual trajectories are taken into account (Mitki, Shani and Stjernberg, 2007). Most programs prefer one over the other, and more often, the individual focus consisting of pre-set outcomes and pedagogy (Hotho and Dowling, 2010). The need for collective development stems from the notion that leadership is a multilevel construct (Day et al., 2014) and a multi-party phenomenon that involves more than just the individual leader (Baker, 2014; Grint, 2005; Gooty, Serban, Thomas, et al, 2012; Osborn et al., 2002; Petrie, 2014; Ziskin, 2016).

These collective approaches seek to understand leadership as a property of teams, networks, business units, and organisational systems (Cullen-Lester, Maupin and Carter, 2017; Ensley, Hmieleski and Pearce, 2006; Goldberg, 2017; Ospina, Foldy, Fairhurst and Jackson, 2020; Pearce, 2004; Pearce, Manz and Sims, 2009; Tourish, 2014; Yammarino, Salas, Serban et al., 2012). Recurring patterns of leading-following interactions creates emergent leader-follower identities, relationships and social structures that enable leaders to adapt in dynamic contexts (DeRue, 2011).

In parallel, the individual cannot be ignored as there is a difference in individual leader developmental trajectories (Avolio, 2005; Avolio and Hannah, 2008; Day and Sin, 2011, 2014; Guillen and Ibarra, 2010; Lord and Hall, 2005; Wiley, 2019). The balance between collective and individual development is critical for impactful development. Interviewees

showed a preference for collaborative and social learning as opposed to individual learning focuses. An academic thought leader interviewed stated, *"Leader development is always embedded within relationships that challenge and revitalize" (Participant #20).* Another interviewee stated:

> *The environment has become complex and we need to tackle it differently. We have an obsession with individual leaders and their charisma and competencies. We need to look more at collective and distributed leadership. Leaders need to see the whole picture. (Participant#16).*

Balancing collective and hyper-personalised LD will be a challenge for researchers and practitioners alike in the future. Eva, Cox, Tse and Lowe (2019) concur that the LD literature is in need of extending its focus to include more collective LD lenses.

Pedagogical Context: How

The pedagogical context addresses the 'how' or process of LD and needs to be considered with the relational and developmental contexts during design. Learning theories in the FoW are also concerned with the process of learning rather than only the content (Kelly, 2019; Siemens, 2004). It encompasses pedagogical methods of transformative learning, constructivist approaches, experiential learning, cycles of immersion and reflection in practice (Allen, 2006; DeGeest and Brown, 2011; DeRue and Wellman, 2009; Eades, 2001; Hezlett and McCauley, 2018; Kolb and Kolb, 2009; Liu, Venkatesh, Murphy and Riggio, 2020; McCall and Hollenbeck, 2002; McCauley, 2008).

In actuality, the experience of transformative learning typically coincides with a crisis or a disorienting dilemma requiring pedagogical nerve (Dugan and Turman, 2018; Fleming, 2018; Mezirow, 1990; Thomas, 2008). Other scholars found that LD should also "intentionally generate some degree of uncertainty and confusion... (for) creative tension" (Lewis and Dehler, 2000, p.710). To take advantage of transformative learning, a structured reflection

process is needed (DeRue, Nahrgang, Hollenbeck and Workman, 2012; Ligon and Hunter, 2010). Critical reflection and experimentation integrate theory with practice, can facilitate insight, and stimulate self-discovery (Brown, 2004, 2007; Carroll et al., 2008; Day, 2011; Gunter and Ribbins, 2002; Hanson, 2013; Hunter, 2010; Raelin, 2008). "Learning needs to be seen as an iterative, cumulative, process in which the learner is able to develop a personal construct that is relevant to their situation and stage of development." (West-Burnham and Koren, 2014, p.34).

In order to embed the learning in the context and real messy problems, interviewees remarked the importance of using "real work as the case study . . . [to] drive effective enough learning." (Participant#10). The following comment captures the essence of pedagogical context of LD:

> *Our programs are very experiential, based on adult development, outcome driven and it creates discomfort so people can experiment and grow. We focus on getting the right facilitators in the room to ensure they can create an effective container for learning to occur. They need a deep understanding of people. (Participant#15)*

Incorporating a transformative method approach in LD drives self-directed learning (Hezlett, 2016) and encourages leaders to drive their own experience-based development, continuous learning and planning, executing and adapting their own capabilities. (DeRue and Ashford, 2014).

Temporal Context : When

The temporal context is the 'when' or timing of LD made up of ongoing, lifelong development starting in young adults/children when cognitive, ethical and behavioural patterns are set. Continuous learning is paramount to LD and emergence because realities are not fixed and we cannot predict the future of complex systems and processes (Fulmer, Gibbs, and Goldsmith, 2000; Mikkelson and Jarche, 2015; Uhl-Bien, Marion and McKelvey, 2007).

The following themes are becoming stronger: "leaders who keep learning may be the ultimate source of sustainable competitive advantage" (Fulmer et al., 2000, p.49), "the best leaders are constant learners" (Mikkelsen and Jarche, 2015, p.2) and "leaders must get comfortable with living in a state of continually becoming, a perpetual beta mode"(Mikkelsen and Jarche, 2015, p. 3).

LD programs therefore need to be designed, evaluated and adjusted in real time. There is a trend towards including the voices of learners collaboratively in the preparation of development design to create more inclusive and purposeful outcomes (Bradford and Leberman, 2019; Damiani, Haywood Rolling Jnr. and Wieczorek, 2017; Somerville and Nino, 2007). This needs to be on ongoing, evolving process.

Evaluation should cover learning beyond specific events and when the learner is back in reality doing the work and needing to apply the learning (Gottfredson and Mosher, 2018; Phillips, Jones and Schmidt, 2000; Wise 2012). Researchers are also starting to challenge the disparate approaches of the conceptualisation and operationalisation of current evaluation criteria and encourage evaluation approaches to capture the multidimensional and temporal nature of learning which mediates learning and outcomes (Wallace, Torres and Zaccaro, 2021). The need to go through learning journeys over a long period of LD programs is reflected in the following comment:

> *The complexity gap of what the environment requires and what leaders can deliver has outstripped leaders' abilities to make sense. Developing great leaders takes time and organisations are not patient enough for outcomes or willing to invest in the long term. (Participant#20)*

Incorporating the temporal context in LD creates adaptive learning environments, tracked and updated in real-time, but providing lifelong development relevant to changing contexts.

Technological Context : Where

Finally, the technological context is the 'where' of LD. Development is fast moving from 'in-person' to blended and virtual in the FoW context accelerated by COVID -19. There is also pressure on LD teams to manage costs AND deliver development at scale. Sowcik et al. (2018) found that on-line delivery programs significantly reduces cost, optimises participant time and provide synchronous and asynchronous learning opportunities (Sowcik et al., 2015, Vallo Hult and Bystrom, 2021).

Learning teams need to adopt digital standards and leverage technology and culture to provide a more engaging, collaborative, personalized, interactive and ultimately more impactful, blended and virtual learner experience (Sowcik, Andenoro, McNutt and Murphy, 2015; Ziskin, 2016). An increasing number of institutions support the idea that blended learning should be introduced as part of a transformative redesign process that rebuilds courses as opposed to just adding on technology to existing content (Brand and Elbaz, 2018; Garrison and Vaughan, 2008; Hilliard, 2015; Littlejohn and Pegler, 2007; Pallof and Pratt, 2005; Sharpe, Benfield, Roberts and Francis, 2006; Smythe, 2020; Vaughan, 2007). Interestingly, the theme of blended, virtual and technology-enabled LD were not a recurring theme in the interviews with the thought leaders, which were conducted pre-pandemic.

Summary

In conclusion, six context-based dimensions – environmental, developmental, relational, pedagogical temporal and technological – are proposed to create a more nuanced and processually rich LD model and approach. This approach is set in contrast to the current competency biased, individual leader-centric, and non-adaptive approaches to LD.

Towards a Context-Nuanced, Processual LD Model

A critical Review of Two LD Models

Following the scoping review and interviews with thought leaders and practitioners on LD in the context of the FoW, we identified two LD models that incorporate some of the above emerging themes. The two models are the PREPARE framework developed by DeRue and Myers in 2014 and the eco-systemic model developed by Theo Veldsman in 2016.

Model 1: PREPARE Framework

The first model, the PREPARE framework (DeRue and Myers, 2014) consists of seven key components: (1) Purpose, (2) Result, (3) Experience, (4) Point of Intervention, (5) Architecture, (6) Reinforcement, and (7) Engagement. *Purpose* refers to how LD enables the organisation to achieve strategic and transformation objectives first. *Result* refers to the agreed desired outcomes of the LD. *Experience* refers to how the LD is designed. *Point of Intervention* refers to who is being developed and whether it is individual or collective and shared learning. *Architecture* refers to the organisational context that can help facilitate and support LD. *Reinforcement* refers to the timing and sequencing of experiences. Finally, *Engagement* refers to how individuals and collective leaders journey through the LD process.

The strength of the model lies in its emphasis on how organisations can deliberately and systematically leverage a range of developmental experiences for enhancing the leadership capabilities of individuals, relationships, and collectives. The authors contend however that there are aspects of the PREPARE framework that lack the necessary theoretical or empirical grounding, and thus represent opportunities for future research (De Rue and Myers, 2014). The model can benefit from a deeper focus on context, lifelong learning, adult development, co-created development and virtual and blended learning.

Model 2: Eco-systemic Approach

The second model proposes that LD be future-fit, contextually appropriate, and widely integrated (Veldsman, 2016). This model consists of the following elements: 1) Timeframe, 2) Setting, 3) Purpose, 4) Scope, 5) Participants, 6) Learning, 7) Content, and 8) Outcomes. This model embeds the relevance of context in the *Purpose, Setting* and *Content* dimensions and calls out for Vertical and Horizontal development in the *Scope* dimension and collaborative LD in the *Participants* dimension. The *Learning* dimension addresses the changed pedagogy of leadership through co-created experiences and real time experiences, blended models and multiple modes. Finally, the model has a strong *Outcome* focus.

The strength of the model is its eco-systemic approach that treats the leadership community as a learning unit that is multi-dimensional, self-designing, collaborative, emergent, systemic, and iterative. Leaders are considered active learners and contributing collaborators. While this model has a long term time frame, it does not directly encapsulate the themes of lifelong learning, adult development and digital development – all key dimensions of LD in the context of the FoW and ongoing disruption.

In summary, both models have their areas of strengths and gaps in relation to the dimensions of LD critical to the FoW and both can be further strengthened in the areas of external context, co-created experiences, collaborative development, a focus on meaning making and adult development and virtual, digital and blended approaches.

Building on these models as the baseline, we developed six interconnected contextual themes that emerged from the scoping review and interviews to propose a contextually nuanced, processual model of LD fit for the FoW as delineated in Figure 1. A processual model provides a framework of how collective leaders actually do development work through emergent movement and flows. Processual theory posits identity work as "liminal practice – emergent, edgy, ephemeral, precarious and fluid in nature –" (Simpson and Carroll, 2020, p.1). The six contextual dimensions provide a more nuanced approach to better design,

develop and evaluate LD programs. It is critical that all six dimensions are used together for maximum LD impact and relevance. A summary of each of the contextual dimensions is provided below.
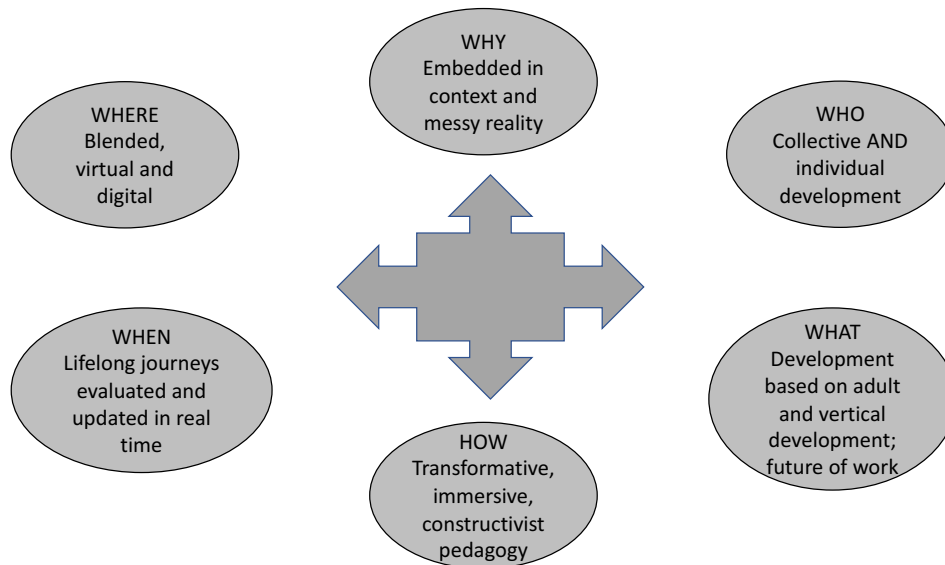
Figure 1. The leadership development model for the future of work

WHY: Embedded in Context and Messy Reality.

Context is critical to the success of LD. LD needs to be embedded in complexity so that leaders are better able to reflect how leadership occurs in the real world. It is based on current and unfolding/emerging organisational and environmental challenges and aligns continuously with how the organisation needs to achieve its strategic and transformation objectives in the FoW context.

Embedding LD in context addresses the overemphasis of current LD approaches on context-detached competencies, one-size-fits-all, programmatic approaches which is too simplistic for the context leaders lead in. It moves away from the notion of leaders as individual actors acting in isolation of context and focuses more adequately on the

requirements of leaders in the future.

WHO: Collective AND Individual Development.

Our proposed model highlights the importance of combining individual and collective learning. At the same time, individual leaders are expecting more personalised approaches to their development. Focusing on the collective AND individual approach to LD shifts the lens of LD away from non-systemic, individual-centred development to a broader and collective framework where leaders are in relationships with others and with the context, whilst still leveraging the focus on individual leader growth trajectories and gaps. It more accurately addresses the work of leadership as a property of teams, networks and systems and advocates the use of social learning to scale and distribute leadership. The sequencing of collective and individual LD becomes critical.

WHAT: Development Content Based on Adult and Vertical Development (Mindsets and Practices).

Incorporating adult development theory (mindsets and practices) into the discussion of LD will help program architects create better and deeper development experiences that will counter the current use of competency and behaviour based only programs. The outcome of adult development is the ability to think in more complex, systemic, strategic, and interdependent ways. The focus on adult development in LD signals a significant departure from the predominant focus on knowledge and skills to the evolution of mindsets and ways of making meaning/more complex sense making. It aligns with how leaders' thinking transform in reality over time which leads to more lasting behavioural change.

HOW: Transformative, Immersive, Constructivist Pedagogy

LD programs need to refocus efforts on developing mindsets and practices that leverage transformative, immersive and constructivist pedagogy. Transformative learning will

especially gain ground as it is fundamental to adult development in general, and because maturity–highly developed ethics, morals, integrity, relatedness, authenticity, and, most especially, trustworthiness– is fundamental to LD. The transformative, immersive, constructivist approach to pedagogy stands in sharp contrast to the current approach of pre-set outcomes and pedagogy. The proposed pedagogical lens harnesses the process of learning not just the content of the learning emphasising experiential and immersive learning, reflection and practice. Allio (2005) reminds us that people become leaders through practice and deliberate forms of leadership and therefore the pedagogy has to ensure that leaders are challenged by learning experiences that stretch them and builds insights and critical thinking.

WHEN: Lifelong Journeys Evaluated and Updated in Real-time

Leaders will face a future of continuous learning and reskilling. Future fit LD initiatives must be designed with maximum versatility and flexibility in mind so that program participants can access knowledge and activities on a 'just-in-time' and ongoing basis. Along the learning journey, learning impact needs to be continually evaluated, tracked and adjusted in real time to remain relevant. Lifelong, adjusted learning helps to counter the low impact of one off, event based learning that shows rapid deterioration of knowledge retention and low levels of application. Learning becomes an iterative, cumulative process which acknowledges that learning takes time. It is an approach that deals more effectively with the challenges of ever changing and emerging realities.

WHERE: Blended, Virtual and Digital

Learning in the FoW will be blended and technologically enabled. This will challenge current pedagogical approaches. New learning technologies provide us with a step change opportunity to deliver LD in a cost-effective, scaled and impactful way in the context of the FoW and to all levels of leaders. From a humanistic point of view, most learners who participate in blended learning activities will be afforded an opportunity to participate in

motivation, personalization, feedback, fluency of listening, see relevancy in their learning, social connection and will become more self-directed and disciplined from the experience. The blended approach counters the costly approach of in person, one off events and significantly reduces cost, allows for greater participation and provides synchronous and asynchronous learning opportunities. It also provides adequate "scaffolding" for the optimisation of learning. (Rabin, 2013). Critical to the success of this dimension is a transformative redesign of the learning experience as opposed to just adding technology to existing content. Hooijberg and Watkins (2021) write that to design effective LD experiences, designers have to start by identifying the desired business impacts and then identify the dimensions of the learning that can only be achieved in an in person interaction. Only then should supporting and enabling virtual and micro learning elements be developed.

Discussion

The current study sets out to develop a contextual and processual model of LD on the basis of a scoping review of the literature and interviews with LD thought leaders and practitioners. In doing so, we answer an ongoing call for an LD framework that better reflects the aforementioned contextual changes and complex nuances (Mabey, 2013; Petrie, 2014; Taylor, De Guerre, Gavin and Kass, 2002). Our model comprising six context-embedded dimensions (environmental, developmental, relational, pedagogical, temporal and technological) that are all interconnected.

In spite of the salient role of context in leadership and, by extension, development of leaders and leadership, our scoping review suggests that the current LD approaches do not consider context as a strategic consideration in every stage from program design to program delivery. Specifically the majority of LD programs are characterized by three patterns, namely overemphasis on competencies, overemphasis on individual leaders, and underemphasis on evaluation. While we do not claim it to be a novel nor counterintuitive

finding, we provide a much needed reminder for leadership researchers and practitioners who for various reasons tend to pick these low-hanging fruits to the exclusion of context. Our scoping review affirms the time-tested dictum that leadership does not exist in a vacuum, and that context shapes leaders as much as leaders shape context. Pushing context to the periphery would only lead to the proliferation of LD that equip individuals to be competent super-leaders who individually operate in a context that no longer exists. We contend that leadership-in-context is at least as important as leadership competencies.

The most important contribution of the study is the development of the contextual and processual LD model. Given the aforementioned gaps in the LD literature and in response to a call for more context-sensitive approaches to LD (Burge and McCall, 2015; Day and Dragoni, 2015; Hazy and Uhl-Bien, 2012; McCauley and Palus, 2020; Day et. al., 2021), we propose a new interconnected contextual six-dimension LD model fit or the future world of work based on analyses of interview data and refinement of two notable LD models (De Rue and Myers, 2014; Veldsman, 2016). Importantly the model addresses the concerns of Carroll, Levy and Richmond (2008) that the competency approach transposes context as it represents individual actors as acting in isolation of others and that competencies will be relevant in whatever constitutes the future.

Each of the six contextual dimensions (i.e., environmental, developmental, relational, pedagogical, temporal and technological) is typically considered individually (at times, in combination with one or two other) in the LD program design. By putting all six dimensions together as an integrative framework, we present a comprehensive, evidence-informed process model that comprises of relevant and sequential parts.

In doing so, we corroborated the processual view of leadership that sees leadership as an ongoing social interaction involving all organisational actors and needs to take into account the complexities of contemporary circumstances (Carroll et al, 2008, Kennedy et al, 2013).

Strategically thinking about the *environmental* context as a starting point would assist leadership researchers and practitioners in constructing a shared understanding of leadership requirements in terms of an organisation's industry, strategy and client challenges. The focus on the environmental context adheres to the fact that leadership is a highly contextualised process of reality construction and management of meaning which involves complex interactions among leaders and followers (Hamilton and Bean, p.336). Once a shared understanding of the "why" is reached, the other contextual elements are in constant interplay with the "why", and with each other.

The *relational* context, for example, bring the focus on collective LD into line with the processual view of leadership but also simultaneously addresses the need to focus on individual trajectories of development. Our model also highlights the salient role of the *developmental, pedagogical* and *technological* contexts, and how they should be considered together in the design stage of the LD program to create a synergy, such that the whole is greater than the sum of its parts (i.e., the 'what' – mindsets, practices; the 'how' – transformative, constructive; the "where" – blended, virtual. Pedagogy is further impacted by the technological context creating the need for blended approaches and deeper and adaptive learning (Grimus, 2020).

Of all six dimensions, the *temporal* dimension (when) that signifies the lifelong LD is perhaps the dimension that would benefit the most from more in-depth research. While countless online platforms that provide on-demand, solution-centric approaches to LD provide opportunities for anyone to pick and choose those that suit that personal LD need, learning how to lead effectively cannot be done in sound-bites detached from its ever-changing dynamic at the dyadic, team, and organizational level. Future research would be needed, however, to justify the value of investing in long(er)-term LD program, particularly in light of the already staggering budget for LD programs.

As for practitioners, our study provides a strategic and comprehensive roadmap for designing and delivery a scalable LD program for the FoW. Leadership trainers, coaches, and consultants can employ our evidence-informed model with confidence as a process-based model that encapsulates every aspect pertinent to LD programs. As they work with their clients to navigate the messy reality of their firm and industry contexts, each dimension in our model can be discussed thoroughly with different levels of management to ensure the maximum impact of the LD program. The *technological* dimension, for example, highlights the blended and/or fully virtual LD program delivery as the way forward in the future of work context that is more cost effective, scalable, and impactful approach to LD.

The study also has its limitations. First, it is limited to twenty-two interviews. Most of the thought leaders interviewed were authors of the emerging theme papers cited in this study or leaders/leadership developers that were already addressing the shortcomings of LD in their organisations. Including other leadership researchers and practitioners who work specifically with disruptive technologies or in disruptive industries in future studies would generate richer insights into the identified themes. Furthermore, the interviews were conducted before the onset of COVID-19 with a strong focus on the FoW, without the virtual or hybrid development that are seen as standard convention today. Future research could use case studies to further validate the model for virtual or hybrid delivery mode.

In summary, we believe our integrated six-dimension contextual and processual LD model will advance research into effective LD in the FoW context. This will in turn lead to more critical selection of LD models by leadership practitioners, informing their leader selection, assessment and promotion decisions.

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5.3 Summary of Journal Article 1 Contribution

In terms of LD, there is a challenge to demonstrate impact of costly LD interventions on preparing leaders for complex and uncertain FoW context and on their ability to create sustainable business results. The development of an integrated, evidence-based LD model based on contextual dimensions is timely to help researchers and practitioners assess and pivot their current approaches.

The frame of constructivist approaches has been proposed as a better fit for the FoW because knowledge and competencies are becoming more transient due to the rapidity of change in the FoW context. Development grounded in adult development and transformative learning and supported by technology provides ongoing, lifelong learning at scale and collectively. Virtual LD is now a proven method for delivering programs that accelerate the speed and impact of learning and can scale to meet the needs of global enterprises.

6 Case study of LD in the Context of the FoW and Ongoing Disruption

Submitted to *Business Horizons.*

6.1 Introduction

This journal article describes how I use future-fit development criteria and a model for leadership and LD of 150 senior global leaders of a global PSF. A blended, virtual program was delivered over two years to address capability gaps, emerging strategy and the learning goals set. The lessons of a program that had to adapt and evolve is shared in this article with frameworks and suggestions for those who want to create more impactful programs and learning in the context of an uncertain, complex and virtual environment.

6.2 Journal Article 2:

Context Matters: Lessons From a Senior Leadership Development Program

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Context Matters: Lessons From a Senior Leadership Development (LD) Program

Abstract

The level of discontinuous and disruptive change in the future of work (FoW) context has prompted organisations to rethink leadership development. (LD) Unfortunately, an overwhelming majority of LD programs are detached from their individual context and the multi-layered nuances within such context. In this article, we present a case study implementation of a contextual and processual model of LD for senior leaders of a professional services firm (PSF) designed and delivered in the midst of the pandemic. This industry provides an opportunity to understand the level of complexity and uncertainty present for all organisations. Even before COVID-19, the industry was experiencing significant disruption and slow growth. During the pandemic, work dried up and deep cost cuts were made. Once organisations started recovering, there was a sudden surge for their services at a time when they were short on talent and had to deliver work in a new virtual world. Clients presented with more complex and interrelated challenges to be solved that did not necessarily fit with current products, services and expertise. We apply our contextually nuanced, processual leadership and LD frameworks to a program in this industry and study the results and the lessons learnt to share with researchers and practitioners alike to advance our understanding of leadership and LD in complexity and uncertainty.

Keywords

The Need for Future-Fit LD

Prior study on critical elements of high-quality LD programs found that context emerged as the most critical element (Elkington, Pearse, Moss, Van der Steege, & Martin, 2017), highlighting the accelerating rate of VUCA (volatility, uncertainty, complexity, and ambiguity) in such context. Since LD effectiveness depends largely on the context, the necessity for leaders to adapt to the complexity of contemporary challenges cannot be overestimated (Bostrom, 2014 ;Veldsman, 2016). The importance of context in effective LD has been well documented in the literature (Collins and Holton, 2004; Elkington et al, 2017; Leroy et al, 2022; Osborn and Marion, 2009; Uhl-Bien, Marion and McKelvey, 2007). In a 2020 World Economic Forum report, three significant challenges are called out that interact to accelerate complexity and change – these include: the acceleration of digitalisation, artificial intelligence and automation, the changes to a remote and hybrid world caused by the pandemic and a renewed call for sustainability and social justice.

In such context, the prevailing focus on standardised and predictable approaches in developing leaders (e.g., the KSA framework – knowledge, skill, ability) are often inadequate to bridge the gap between the future-fit and current leadership capacity. In terms of delivery mode, current LD programs that are based around a rigid pedagogical approach (e.g., face to face, short term interventions) cannot not sufficiently equip leaders with the new leadership 'mindsets and practices' (an emerging term used by innovative LD practitioners) needed for the FoW context (Hotho and Dowling, 2010). In order to address this gap, we proposed a future-fit LD model on the basis of three notable and evidence-based models developed by key scholars in the area. First, our models draw on Day, Harrison and Halpin's (2009) three-level model (i.e., foundation, meso level, surface level) which covers how individuals develop as leaders and how groups of individuals develop their leadership. We add an additional layer to the model of ethics and highlight the salience role of context in ensuring

the development of morally courageous leadership (Roux, 2020). Our models are also built on two other models, namely DeRue and Myers' (2014) PREPARE model and Veldsman's (2016) integrated model. The former focuses on strategic purpose and results of LD in relation to how organisations can deliberately and systemically leverage a range of developmental experiences for individual and collective leaders. The latter focuses on how the expected leadership challenges within the requisite timeframe and strategic horizon are best addressed.

Drawing on these three models, we developed a granular approach to a contextual and processual LD model that emphasized the building of a moral base and growth mindset, curiosity, and learning agility as prerequisites for future-fit LD (Roux 2020; Roux, Sendjaya, & Reams, 2022). We then deploy a future-fit LD model with six interrelated contextual dimensions – environmental, developmental, relational, pedagogical, temporal and technological – which underpin what leaders develop (e.g., identity, values, skills) as well as how leadership develops (e.g., team-based, virtual) (Roux, Roux, Sendjaya and Reams, 2022). In this article, we outline the application of the new and updated models in a virtual, global senior LD program at a PSF conducted at the onset of and during the COVID 19 pandemic in early 2020 through to end of 2021. As a case study of the design and delivery of LD program, we will also cover evaluation of the model and key lessons learned. The next section presents in more detail the contextual dimensions of the future-fit model of LD we delivered.

Contextual Dimensions of The Future-Fit LD Model

The six contextual dimensions of environmental, developmental, relational, pedagogical, temporal and technological are defined as follows:

1) The environmental context addresses the 'why' of LD (Burge and McCall, 2015; Hazy and Uhl-Bien, 2012; James and Burgoyne, 2001; Probert and Turnbull James, 2011; Uhl-

Bien and Marion, 2009; Wiley, 2019). It highlights that leaders' work is embedded in contexts in which 'wicked problems' occur (Heifetz and Laurie, 2001). Embedding LD in context addresses the overemphasis of current LD approaches on context-detached competencies, one-size-fits-all, programmatic approaches which is too simplistic for the context leaders lead in. It moves away from the notion of leaders as individual actors acting in isolation of context and focuses more adequately on the requirements of leaders in the future.

2) The developmental context is the 'what' of LD. It refers to holistic developmental needs of the LD participants which is embedded in mindsets and practices. It necessitates an adult development approach (Bartunek, Gordon and Weathersby, 1983; Cook-Greuter, 2004; Day et al. 2009), a focus on cognitive complexity, (Dawson and Heikinnen, 2009; O'Connell, 2014) and the use of transformative learning models (Eades, 2001; Fleming, 2018). The focus on adult development in LD signals a significant departure from the predominant focus on knowledge and skills to the evolution of mindsets and ways of making meaning/more complex sense making. It aligns with how leaders' thinking transform in reality over time which leads to more lasting behavioural change.

3) The relational context describes the 'who' of LD. It describes the need for collective and social development to address the relational aspect of leadership balanced with individual, hyper-personalised learning to ensure individual trajectories are taken into account (Denis, Langley and Sergi, 2012). Focusing on the collective AND individual approach to LD shifts the lens of LD away from non-systemic, individual-centred development to a broader and collective framework where leaders are in relationships with others and with the context, whilst still leveraging the focus on individual leader growth trajectories and gaps. It more accurately addresses the work of leadership as a property of teams, networks and systems and advocates the use of social learning to scale and distribute

leadership. The sequencing of collective and individual LD becomes critical.

4) The pedagogical context addresses the 'how' or process of LD. Learning theories in the FoW are more concerned with the actual process of learning, not the value of what is being learned (Kelly, 2019; Siemens, 2004). It therefore encompasses pedagogical methods such as constructivist approaches, experiential learning, cycles of immersion and reflection in practice. The transformative, immersive, constructivist approach to pedagogy stands in sharp contrast to the current approach of pre-set outcomes and pedagogy. The proposed pedagogical lens harnesses the process of learning not just the content of the learning emphasising experiential and immersive learning, reflection and practice.

5) The temporal context is the 'when' or timing of LD. It is proposed that LD be ongoing and lifelong – regularly, evaluated and adjusted. (Fulmer, Gibbs, and Goldsmith, 2000; Mikkelson and Jarche 2015; Uhl-Bien, Marion and McKelvey, 2007). Learning and development never ends and the context always evolves. . Lifelong, adjusted learning helps to counter the low impact of one off, event based learning that shows rapid deterioration of knowledge retention and low levels of application. Learning becomes an iterative, cumulative process which acknowledges that learning takes time. It is an approach that deals more effectively with the challenges of ever changing and emerging realities.

6) The technological context is the 'where' of LD. Development is moving from 'in-person' to blended and virtual in the FoW context. Learning teams need to adopt digital standards and leverage technology to provide a more engaging, collaborative, personalized, interactive learner experience (Sowcik, Andenero, McNutt and Murphy, 2015; Ziskin, 2016). The blended approach counters the costly approach of in person, one off events and significantly reduces cost, allows for greater participation and provides synchronous and asynchronous learning opportunities. It also provides adequate "scaffolding" for the optimisation of learning. (Rabin, 2013). Critical to the success of this dimension is a

transformative redesign of the learning experience as opposed to just adding technology to existing content. Hooijberg and Watkins (2021) write that to design effective LD experiences, designers have to start by identifying the desired business impacts and then identify the dimensions of the learning that can only be achieved in an in person interaction. Only then should supporting and enabling virtual and micro learning elements be developed.

In the next section, we will discuss how we applied the six contextual dimensions to the design and delivery of the PSF Senior Leadership program as an applied case study.

The Case Study Firm and PSF Senior LD Program – Design, Delivery and Evaluation

The case study firm is a multinational PSF with four lines of business operating in 130 countries. According to the International Executive Team (IXT), the PSF faced the following four challenges in 2019: 1) Work to solve new client challenges and apply new approaches to organise complex issues, 2) Tackle client challenges outside their areas of technical expertise, 3) Effectively deal with ambiguity and ongoing disruption in the client landscape and 4) Be comfortable with experimenting, learning, failing and improving to drive value for clients. The underlying theme to all these challenges was a shift from promoting technical experts into leadership roles to cultivating and aligning deep experts throughout the organisation.

Following iterative consultations with the senior leaders of the PSF, we designed a bespoke LD program for all 150 Country Chief Executive Officers (CEOs) and Business Unit Leaders across the globe (outside of the USA and Canada) that report into the IXT. The program was delivered virtually over 24 months after the onset of the pandemic changed the initial plan for a blended design. The application of the contextually nuanced, processual leadership and LD models in the design and delivery of the program is discussed in more detail below. It is also shown in Table 1.

Table 1: Application of contextual dimensions in the program

Contextual Dimensions	How it was applied
Environmental context: Why Embedded in context and messy reality	The program was initiated by the International Executive Team (IXT) in response to low growth and challenging market conditions. They identified the competencies they were looking for in their leaders for the future and assessed these competencies to understand the key gaps. Growth Orientation (Delivers the Whole Firm), Strategic Innovator (Boldly Shapes the Future), Industry Leader (Brings a Point of View), Executes Well and People Enabler. Further interviews were conducted with the key stakeholders and a Discovery Survey and 180 degree leadership assessment was conducted with all participants and their managers. The 180 assessment focused on more detailed mindsets and practices that underpinned the initial high level leadership competencies developed by the Executive team. Participants selected strategic and real clients and internal challenges in the immersion part of the learning experience.
Developmental context: What Development based on adult and vertical development	The focus was on developing mindsets, mental models and practices – growth mindset, immunity to change, ego action logics and the development of systems thinking was woven through the learning design.
Relational context: Who A focus on collective AND individual development	The group of 150 was broken into 5 cross-country and business line cohorts to accommodate different time zones and optimise learning and networks. Throughout the live webinars and in the client action groups, teams were mixed up and had time to get to know each other and connect.
Pedagogical context: How Transformative, constructive learning pedagogy used – immersion, experience, reflection and practice	A combination of Self-Directed Learning and Reflection, Webinars, Podcasts, Breakout reflections, Polls, Client action projects, Real life complex problem dis-solving, Human Centered Design and a final Leader Action Plan were used to create constructive learning.
Temporal context: When Co-designed lifelong learning journeys that are evaluated, tracked and adjusted in real time.	Participants were asked through a Discovery Survey what their key priorities and pain points were in terms of creating profitable and sustainable growth. After each session, the participant reactions were tracked and the team adjusted the content and approach. At the end of the program, a Kirkpatrick and Kirkpatrick (2016) level 3 and 4 evaluation questionnaire was sent to all participants, 6 semi-structured interviews were conducted with Executives and Coaches and Client Sales Results (of those clients nominated for the program) were tracked using the Customer Relationship Management System.
Technological context: Where A blended, virtual and digital approach	The program was delivered completely virtually and several methods were used to ensure that the pedagogy was immersive, experiential and reflective. Zoom, Menti and Mural technologies were used to deliver the program. A Community site and forum created a social space for leaders to connect.

The Environmental Context of the Program – Why

A significant time and effort was spent in the upfront design of the program to ensure key priorities and gaps were identified. A competency based leadership profile developed by the IXT before the pandemic in response to slow growth experienced industry side profile highlighted 5 traits they looked for in leaders that could drive significant growth, namely: Growth Orientation (Delivers the Whole Firm), Strategic Innovator (Boldly Shapes the Future), Industry Leader (Brings a Point of View), Executes Well and People Enabler. The competencies were not defined further into behaviour statements and leaders collectively rated individuals based on their current understanding of individual competence in these areas. Initial results showed individual as well as regional gaps and differences as is shown in Table 2 below.

Table 2: Initial assessment of leadership competence by the IXT

	STRONGEST ATTRIBUTE	WEAKEST ATTRIBUTE
Asia	Industry Leader/ Executes Well	Strategic Innovator/ People Enabler
DS	Industry Leader	Strategic Innovator/ People Enabler
Europe	People Enabler	Growth Oriented
IMETA	Industry Leader/ People Enabler	Strategic Innovator
Latin America	Industry Leader	People Enabler
Pacific	Growth Oriented	Strategic Innovator/ Industry Leader
UK	People Enabler	Growth Oriented

To gain a deeper understanding of the mindsets and practices underpinning the results of the competency based leadership profile initially defined by the IXT, further interviews were held with a select group of stakeholders (14 in total). The interview data indicated that the number one business requirement was *commercial growth* in order to achieve future success. The number one people requirement was to curate a *growth mindset* (as defined by Dweck,

2008). Furthermore, new strategic goals of *issues led selling* (moving from selling products and services to problem solving for client issues) and a *one enterprise mindset* (cross line of business and inter business collaboration and delivery to solve client issues) emerged as strategic themes.

In addition to these interviews, future participants were invited to take part in a Discover Survey focusing on what they felt their key challenges and priorities were. The initial 5 traits were also unpacked into mindsets and practices and developed into a 180-degree leadership assessment questionnaire. As part of the initial program design, participants and their direct managers assessed the mindsets and practices of participants to develop an understanding of collective and individual gaps.

Involving participants in the design, aligns with the trend towards including the voices of learners collaboratively in the preparation of development design (Bradford and Leberman, 2019; Damiani, Haywood Rolling Jnr and Wieczorek, 2017; Somerville and Nino, 2007). The results indicated that participants felt they were challenged by a changing market, new levers for growth and lack of commercial/client facing capabilities. *Growth mindset* was also rated by participants and managers in the 180 degree leadership assessment as the most important capability to develop. Together with the themes from the interviews, these findings were embedded into the design of the program.

To further inform design with context, an industry desktop review and literature research was conducted. The review showed several specific industry trends and challenges (CBInsights, 2020; Empson, 2021; Nanda and Naryandas, 2021; Pike, 2021; Rubin, 2021) including increased pressures for global services, expansion of services and location, delivery of more integrated services, investment in technology and significant increases in the costs of attracting, retaining and rewarding talent (Strumpf, Doh and Clark, 2002). Immediate effects of the pandemic were seen in forced remote work that affected project delivery and resource

management and reduced client demand. This led to significant cost-cutting. However, as time went on, PSFs experienced a sudden and unprecedented demand for their services (Empson, 2021; Nanda and Naryandas, 2021; Pike, 2021; Rubin, 2021). Their leaders found themselves under even more intense pressure than before.

Once all the data was gathered, an iterative design process led to a design signed off by the IXT as shown in Figure 1 below:
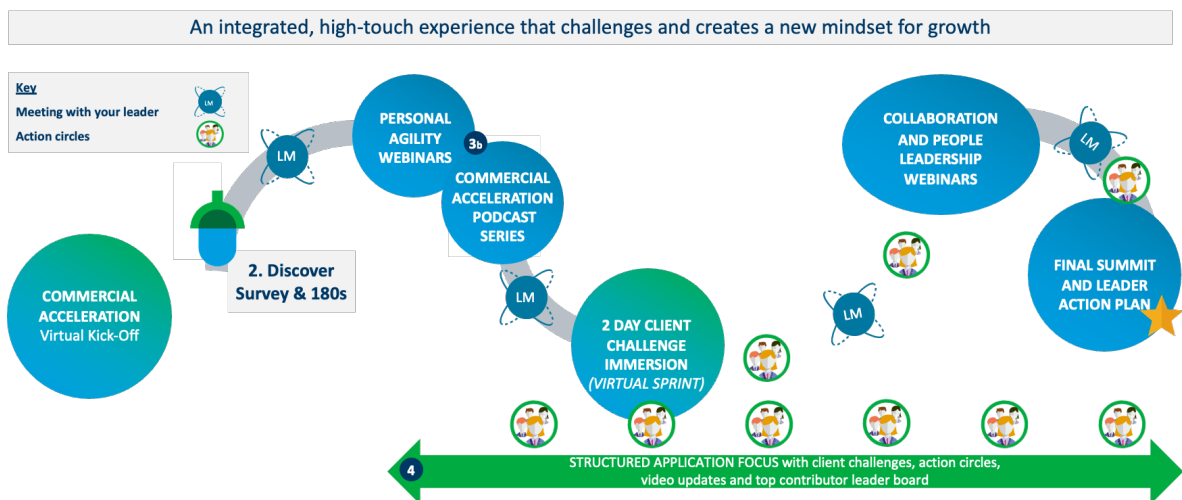
Figure 1: Learning journey

The Developmental Context – What

The developmental context (the 'what') refers to clear learning objectives, which in our case study PSF were developed (and later used to measure impact) in consultation with the IXT, namely: (1) understand what is expected of them as leaders and how they will achieve commercial growth in the next 5 years in a sustainable, co-created way; (2) develop a mindset for growth, key capabilities and key set piece routines that will be instrumental in accelerating growth across the business in a purposeful, human centred way; and (3) collaboratively work on the commercial challenges and organisational barriers across the organisation in this experience, through experimentation, learning, implementing and future skills building.

It was particularly critical to help participants shift from experts to leaders in an industry and organisation where leaders safeguarded their professional identities strongly. This confirms what Argyris (1991) and Empson (2013) found, namely that even the concepts of 'leaders' and 'followers' are problematic in PSFs with power relationships much more ambiguous and dynamic than in other organisations.

This requires a reconstruction of professional identities so that collaborative leadership emerges as a desired new identity where leaders can adjust to the context with others (Berghout, Oldenhof, van der Scheer and Hilders, 2019). Adult development theory (mindsets, mental models and practices) and development of systems thinking were woven through the learning design and delivery approach to support identity development.

The Relational Context of the Program – Who

The design was deliberately focused on a collective group of 150 CEOs and Business Unit Leaders. The reasoning of the IXT was the need for a collective uplift in the move from expert to leader, from products and services selling to solving complex client problems, and from working in silos to working together across lines of business and across businesses within the holding company.

Social learning was facilitated through regularly interacting with each other in live sessions, break outs, client action cohorts and a community hub. Participants worked together on their client challenges leveraging co-responsibility for learning. Johnson and Johnson (1986) argue that participants who work in such groups show greater interest and understanding, and retain more of the subject matter, than others who pursue information through individual learning.

The Pedagogical Context of the Program – How

Pedagogical methods such as transformative learning, constructivist approaches, experiential learning, cycles of immersion and reflection in practice were used intentionally

and in an integrated way to create impact. It was especially critical to have one overall facilitator that constantly integrated the learnings and experiences from this virtual integrated learning environment and that it did not feel like separate "events".

The participants spent the first six months developing personal agility mindsets and practices and contextual intelligence through live webinars and asynchronous podcasts.

Over 18 months participants worked in client action groups and with coaches virtually in real time on actual client challenges using Biomatrix systems theory (Dostal, Cloete and Jaros, 2017) - a meta systems theory – to co-create, collaborate and solve complex, systemic client challenges - sell to new clients, turn around unprofitable clients, sell new lines of business into current clients or significantly increase deal sizes in current clients. The program concluded with individual Leadership Action Plans to further embed learning and encourage ongoing development.

The Temporal Context of the Program – When

Continuous learning is paramount to LD because realities are not fixed and we cannot predict the future of complex systems and processes (Fulmer et al, 2000; Mikkelson and Jarche, 2015; Uhl-Bien et al, 2007). The timeline kept shifting and evolving as the pandemic impacts became clearer causing many adaptations and new challenges. The program was designed at the end of 2019 and then run over a 24 month period - the longest any program had ever run in the firm. Regular input was obtained from participants on what worked, what needed to change and whether the content met their needs through small focus groups run virtually.

The Technological Context of the Program – Where

Participants had very little experience with virtual learning and the challenge of moving the entire program on-line and maintaining impact, experience and transformative learning at scale was significant. Various technologies were used to deliver the program including

Zoom, Menti and Mural. The program was also live-streamed in several time zones to accommodate the global nature of the program. In order to ensure that participants were engaged throughout, the sessions were interactive and practical with emphases on relevant lessons learned. Pre-work ensured there was a light touch of theory in the sessions and more time to share learnings, insights, and tools.

Evaluation

The evaluation of LD programs and even more so, online LD programs (cf. Sowcik, Benge and Biewoehner-Green, 2018) remains a challenge for practitioners and researchers alike (Avolio, Griffith, Wernsing and Walumbwa, 2010; Day, Riggio, Tan and Conger, 2021; Gentry and Martineau, 2010). According to Kirkpatrick and Kirkpatrick (2016), approximately 58 percent of online programs measure level one impact, while level three impact is only measured 17 percent of the time. Leroy et al. (2022) found that the least evaluated LD impacts in business schools were ROI (0%), team outcomes (0%), career success (0%), follower effectiveness (0%), capability improvement (1.6%), learning objectives (6.66%) and behavioural change (23.33%). Using these insights, we measured impacts at level three and four of the Kirkpatrick model through interviews, an evaluation questionnaire and client sales results.

Executive Interviews

Interviews with the Executive team indicated that the learning objectives were met, and the program was well received in particular noting great facilitation, content, and engagement throughout. It was further noted that the first two objectives were met more effectively than the third objective, but that the latter just needed more time to bear fruit. Specifically, since the program was tailored to their specific context, the interviewees observed that participants had developed a much greater understanding of their role in driving commercial outcomes, leading their teams and displaying longer term thinking. Interviewees also reported a

noticeable improvement in leaders' growth mindset, self-awareness, and collaboration. The collective nature of the program and client action groups created new relationships, cross lines of business opportunities and broke down regional barriers.

In terms of areas that need improvement, the coaches and executives identified the need for more ongoing senior leader support to create the time and space for the learning when there is increased operational pressure, as well as the need for more customisation for different levels of leaders and regional challenges. Further embedding of the learning to deliver collective client impact at scale to further drive sustainable growth and profitability in the firm was also highlighted in the interview. The details of the key themes emerging from the interviews are shown in Table 3.

Table 3: Post Program Coach and Executive Interview Results

Question	Themes of what worked well	Themes – what needs improvement
General impression of the program	Content and facilitation	Senior leader support and time Customisation by level and region
For all leaders to understand what is expected of them and how they will achieve commercial growth in the next 5 years in a sustainable co creative way.	Expectations of leaders Focus on people	Embedding and cascading More focus on financials
To develop a mindset of growth and key capabilities and routines that will help exhilarate growth.	Improvement in growth mindset and self-awareness	No themes of improvement emerged
To collaboratively work on commercial challenges and organisations barriers across the organisation to make things happen.	Collaboration and networking, cross referral	Larger organisational change requirements to structure and incentives

Participant Evaluation Survey

A nine question evaluation survey using a 7-point Likert scale was sent to all participants to complete at the end of the program. 63 of the 150 participants responded, representing a 42% response rate. Key highlights from the participants include:

1) 92% reporting they could apply the mindsets, skills and knowledge to their work;

2) 90% rating the program as helping them make sense of and respond to a more complex and uncertain environment;

3) 87% rating the program as effective;

4) 86% rating that the virtual methods of learning were on the whole effective;

5) 83% agreed that the program changed their view on what leadership looks like;

6) 78% rated they could develop networks and work more effectively across the firm;

7) 73% rated the learning flowed to their teams and was felt in client impact; and

8) One third of respondents reporting being promoted or taking on expanded roles.

Despite these positive feedback, only 53% of participants thought that their clients had noticed a difference in how they worked. A key summary of the survey results are shown below in Table 4.

Table 4: Percentage of responses from learning evaluation questionnaire who agree (score 5-7 on a 7-point scale with 5 - somewhat agreed, 6 - agreed, 7 – strongly agreed)

Question	*Results*
1. Did this program help you to make sense of and respond more effectively to an increasingly complex and uncertain environment?	90% of participants felt that this program helped them make some sense of respond to a complex and uncertain environment
2. How effective were the virtual methods used in this development program?	86% felt the virtual methods were on the whole, effective
3. Did your view of what it takes to be a leader and how you lead change as a result of this program?	83% felt the program changed their view on what leadership looked like
4. To what extent do you feel you can apply the mindsets, skills and knowledge to your work?	92% felt they could apply the mindsets, skills and knowledge to their work

Question	Results
5. To what extent did this program develop your network and ability to work across the firm?	78% felt they could develop effective networks and the ability to work across the firm
6. To what extent has the learning helped you and your team to achieve your goals in terms of client impact?	73% of respondents felt the learning impacted their and their teams; ability to achieve goals aligned to client impact
7. Have the clients noticed and appreciated the difference in your approach?	53% of participants say clients have noticed a difference – this needs to be further embedded post the program
8. Have you been promoted or your role expanded since the start of the program?	31.75% of participants have been promoted or taken on expanded roles
9. Overall, how effective and worthwhile would you rate the program?	87% of participants rated the program as effective

Client Sales and Pipeline Results

To analyse the impact on business results, sales pipelines and actual sales of the clients nominated for the client challenge were analysed using the firm's Customer Relationship Management system. During the 18 months of the challenge, participants identified 247 sales opportunities representing $190M (of which they won $47M). They created 23 opportunities with new clients (defined as having no revenue with the firm for 12 months), worth $17M of which they won 8 opportunities. Furthermore, 27 sales included a new Line of Business to the client, expanding the firm's relationships and 11 opportunities were won.

While we have no causal evidence linking these tangible results to the LD program, coaches and executives attributed some of it to the LD program in the interviews, making statements like: "Well received as a way we want to approach clients and the market and the way we think about market opportunities and how to take those opportunities into life", "Very palpably a lot more recognition of the priority of growth, it's not just about managing P&L to a margin requirement" and "There is definitely a willingness to bring in other businesses across the broader family as well as inside the firm." In sharing these results, it is

important to note that there were many other factors that may have influenced client growth and business results (e.g., the impact of COVID-19 on the world economy and PSFs).

Lessons Learnt

In this article we explore the design, delivery and evaluation of a virtual, global senior LD program in a PSF during COVID-19 using the contextual and processual LD model we developed. Specifically, the application of the six contextual dimensions of LD (based on the work of DeRue and Myers, 2014; Veldsman, 2016; Roux et al., 2022) provided a powerful framework for the design and delivery of the program. The significant effort and time spent on interviewing the IXT, researching the industry, and co-creating the program with participants led to high levels of buy-in and commitment, relevant development and tangible business outcomes. As anticipated, the environmental contextual dimension was particularly relevant to ensure that the LD program will get a strong buy-in from PSF as well as their clients. The use of mindset and practice framework provided a strong base for leaders to learn and grow, enabling them to embrace new ways of tackling the complex challenges of their clients.

Also well executed was the methodological context through a combination of self-directed learning and reflection, live webinars with breakouts, podcasts, polls, client action projects, real life complex problem dissolving and a leader action plan (Kelly, 2019; Siemens, 2004). Before this program, most development was delivered face to face in lecture style learning by experts who decided on the content to be covered. The temporal context was successfully addressed through the co-creation of the learning journey and the 24 month period of delivery with continuous adjustments to the content and approach. Anecdotal evidence from the interviews and evaluation questionnaires indicate that the fully remote approach delivered impactful development. The case study PSF was able to deliver the development to its 150 leaders simultaneously by running a fully remote LD program during the pandemic when no

one could travel. It connected leaders regionally and across levels that had never met before leading to new collaboration opportunities. This echoes several researchers' findings (Sowcik et al., 2015, 2018; Vallo Hult and Bystrom, 2021) that on-line delivery programs significantly reduces cost, optimises participant time and provide synchronous and asynchronous learning opportunities.

In retrospect, a few things could have been improved for future application of our contextual and processual model. First, the mix of CEOs and Business Unit Leaders as well as larger and smaller regions in one learning group and in client action groups created uneven learning and participation leading to some frustration. Clearly this relational context ('who') can be better managed to ensure higher and more equal participant engagements.

Second, the length of the program over 24 months became a sticking point for executives who wanted the focus back on short term results. The pressure on participants to "get back to real work" started to build after the first nine to twelve months. As aforementioned the temporal context ('when') in our case study was severely affected by an external factor outside our control (i.e., the pandemic).

Finally, as the program was fully virtual, Zoom fatigue and other challenges started to set in towards the end. Leaders reported they would have liked an in person component to strengthen connections and work on the complex client challenges together, which was aligned with prior research (cf., Natale and Libertella, 2016: Powell and McGuigan, 2020). We therefore will recommend LD practitioners to tread carefully if they decide to rely solely on virtual learning which severely reduces real human connectedness. Our experience suggests that a virtual LD program should best be run within three and six months, but certainly less than nine months.

Conclusion

This case study offers a general framework to think about future-focused LD for both

practitioners and researchers using the six contextual dimensions in our model. Each of the dimensions can and should be used iteratively as points of discussion between the LD program provider and client to ensure the program effectively equips leaders for the FoW context. Our case study also highlights the efficacy of our model for virtual LD program as a way forward in the FoW context that is more cost effective and scalable approach to LD.

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6.3 Summary of Contribution of Journal Article 2

Validating the models in a real-life case study and evaluating the learning impact and business results help test the models in the real world of practitioners and provide lessons learnt to guide future LD research and practice.

The application of the six interconnected contextual dimensions of LD (based on the work of DeRue and Myers, 2014; Veldsman, 2016; Roux et al., 2022) provided a powerful framework for the design and delivery of the program. The significant effort and time spent on interviewing the IXT, researching the industry, and co-creating the program with participants led to high levels of buy-in and commitment, relevant development and tangible business outcomes.

The use of mindset and practice framework provided a strong base for leaders to learn and grow, enabling them to embrace new ways of tackling the complex challenges of their clients. Also well executed was the methodological context through a combination of self-directed learning and reflection, live webinars with breakouts, podcasts, polls, client action projects, real life complex problem dissolving and a leader action plan (Kelly, 2019; Siemens, 2004).

The temporal context was successfully addressed through the co-creation of the learning journey and the 24 month period of delivery with continuous adjustments to the content and approach.

The case study program in the PSF was able to deliver the development to its 150 leaders simultaneously by running a fully remote LD program during the pandemic when no one could travel. It connected leaders regionally and across levels that had never met before leading to new collaboration opportunities. This echoes several researchers' findings (Sowcik et al., 2015, 2018; Vallo Hult and Bystrom, 2021) that on-line delivery programs significantly reduces cost, optimises participant time and provide synchronous and asynchronous learning

opportunities.

Further enhancements that could improve the longer term impact of this program include: focusing on the mix of levels of experience and market size as a contextual variable that influenced the learning experience especially in the application of the learning to real client vases. This would improve the learning and the engagement of the learners.

Another factor that is acknowledged, but hard to get buy-in for is to run ongoing learning intervention and embedding sessions. As pressure mounted to accelerate business results, the length of the program over 24 months became a sticking point for executives who wanted the focus back on short term results.

The other contextual factor that is hard to get buy-in for was the temporal context ('when') in our case study was severely affected by an external factor outside our control (i.e., the pandemic). As the program was fully virtual, Zoom fatigue and other challenges started to set in towards the end. Leaders reported they would have liked an in person component to strengthen connections and work on the complex client challenges together, which was aligned with prior research (cf., Natale and Libertella, 2016: Powell and McGuigan, 2020). Connectedness and social learning cannot be fully exploited in a fully virtual setting.

7 Discussion and Conclusion

This chapter is a culmination of the study: it shows how applying these models can offer a more comprehensive roadmap to guide the preparation of leaders for a complex and uncertain FoW environment. The chapter provides commentary on the limitations of the study and priorities for future research. It further provides a discussion relating to the key concepts in and application of the models and highlights new contributions to knowledge and practice. In doing so it contextualises and draws on the discussions and conclusions in each of the three publications.

In essence, this thesis proposes and validates two integrative and evidence-based models for leadership and LD that complement each other in the FoW. This study is distinct from other systematic reviews of leadership and LD because it specifically focused on integrating a model of leadership with a model of LD in the context of the FoW and validated these models in a real-life complex LD program.

The thesis addresses the above research aim by answering three research questions:

Q1. What are the emerging themes of research and practice of leadership in the FoW?

Q2. What could an integrated model of LD in the FoW look like?

Q3. How can the integrated models of leadership and LD fit for the FoW context be applied in a real-life and virtual LD program?

In relation to the research questions, the studies reported in the thesis include one book chapter that was already published and two journal articles that were submitted. These are presented and explained in Chapters 4, 5 and 6.

Following a scoping review of the literature, two qualitative research methods were used in the study: semi-structured interviews and a case study.

7.1 Discussion

The study makes several contributions to knowledge and practice relating to leadership

and LD in the context of the future of work. Ultimately, we hope this discussion will provide additional building blocks to guide future theory-building and research to better understand the implications of contextually nuanced, processual leadership and LD. The specific contributions are discussed further below.

7.1.1 Theoretical Contributions

7.1.1.1 Salience and Relevance of Context. First, the study advanced our understanding on the salience and relevance of context in leadership. This model therefore adds to the thinking of 'what' leadership is in the context of the FoW informed by a literature scoping review and interviews with innovative practitioners. Corroborating Day et al's (2009) integrated three-layered approach to leadership and highlights the importance of adult development properties (i.e., identity development, moral development, epistemic cognition, reflective judgment, critical thinking), the proposed model adds a fourth layer, namely underpinning moral/ethics and mindsets (growth mindset, curiosity and learning agility). It also adds a contextual dimension for the four layers to be considered in. In other words, the model depicts leadership as an ongoing social interaction involving all organisational actors and needs to take into account the complexities of contemporary circumstances. (Carroll et al, 2008, Kennedy et al, 2013).

Other researchers could expand this model with their understanding of how mindsets, moral/ethic framework and context interact with the layers in Day et al's (2009) three-layered approach. An added focus could be the further application of this updated model in the virtual, post-COVID, recession reality leaders are leading in.

7.1.1.2 A Comprehensive Process-based LD Model. Second, the study advanced our thinking of LD by developing a most comprehensive, process-based LD model that extends prior work on sequential process models of LD. Scoping review of extant literature suggests that the current LD approaches are context-detached in the following three ways: an

overemphasis on competencies, an overemphasis on individual leaders, and a lack of evaluation and impact. It is proposed that six interrelated contextual dimensions are considered based on analyses of this scoping review, interview data and refinement of two notable LD models (De Rue and Myers, 2014; Veldsman, 2016). The six contextual dimensions are environmental, developmental, relational, pedagogical, temporal and technological.

Using the environmental context as a starting point, the model highlights the importance of complex interactions among leaders, followers and situations, and the sense-making and meaning-sharing required in relation to the organisation's industry, strategy and client challenges (Hamilton and Bean, 2005). Once the "why" is clear and agreed, the other contextual elements are in constant interplay with the "why" and each other. The relational context bring the focus on collective LD into line with the processual view of leadership but also addresses the need to focus on individual trajectories of development as highlighted by adult development theorists. Implicit in the model is the importance of considering these dimensions in the design stage of the LD program where the 'what' (mindsets and practices), 'how' (the process of learning i.e. transformative, constructive) and the "where" (blended, virtual) must be aligned.

Virtual and hybrid working combined with advances in learning technologies (the technological context) provides the efficacy previously lacking in blended approaches and creates scalable, continuous and adaptive learning (Grimus, 2020). One of the more challenging contextual elements remain that of the temporal ('when') context with the notion of lifelong learning, evolving context and the trends of learning in smaller bytes in the flow of work still in contrast with the push for a shorter time frame program with a specific beginning and end point so that leaders can get "back to work".

In sum, the processual model proposed in the study advances our understanding on the

salience of designing individual and collective LD by considering in sequence different contextual dimensions (cf., Eva et al., 2019). Further research will be needed to convince those investing in LD to continue the development over the lifetime of leaders/leadership. Overall though this research supports the position that there is an underlying pattern to the complexity of context in LD, future studies should extend this research by focusing on each of the individual contextual domains.

7.1.1.3 Preliminary Validity of the Proposed Models. Third, and more practically, through testing of the proposed models in a real life senior LD program, the study provides preliminary validity to the model. The case study approach employed in the current study provide support for the models' efficacy and viability to be employed by PSFs and other pertinent organisations that aim to engage in impactful and complex LD programs. Specifically, the processual model can serve as a comprehensive roadmap comprising specific contexts, each of which can be used by organisational leaders to assess current leadership gaps, measure leadership effectiveness, and inform leadership assessment, development, and selection in organisations iteratively.

 This realistic yet unstructured process of designing a large-scale LD program reflects the messy reality of discontinuous changes in the FoW (Engestrom, 2006). The delivery of the LD program that forms part of the case study, which evolved from 'in-person' to virtual, yields a few useful guides for practitioners who seek to find a more cost effective, evolving and scalable approach to LD in the post-pandemic FoW.

 The case study therefore confirms prior view that on-line delivery programs significantly reduces cost, optimises participant time, and provide synchronous and asynchronous learning opportunities (Sowcik et al., 2015, Vallo Hult and Bystrom, 2021). The case study client was able to cut the program costs in half and deliver the development to all 150 leaders simultaneously by running a fully remote LD program during the pandemic when no one

could travel. Anecdotal evidence from the interviews and evaluation questionnaires indicate that the fully remote approach delivered impactful development. Future researchers can replicate the approach in future fully remote, large scale LD programs to further test the impact on cost, scale and effectiveness.

7.1.2 Practical Implications.

Practically, the model developed in this study can be employed as a comprehensive roadmap and applied to specific contexts within the organisation to assess current gaps, measure leadership effectiveness, and inform leadership assessment, development, and selection in the organisation.

7.1.2.1 A Powerful LD Design Framework for Practitioners. The application of the six interconnected contextual dimensions of LD (based on the work of DeRue and Myers, 2014; Veldsman, 2016; Roux et al., 2022) provided a powerful framework for the design and delivery of the case study program.

This study tested the models of leadership and PD via a real life senior leadership program and showed anecdotal evidence that the four layer, contextualised model of leadership and the six interrelated contextual dimensions framework for LD has face validity. Validating the models in a real-life case study and evaluating the learning impact and business results help test the models in the real world of practitioners and provide lessons learnt to guide future LD research and programs.

Future researchers can replicate the models and approach in different LD programs to further test its efficacy.

7.1.2.2 Client and Context Informed LD. The second practice contribution is the client and organisational context informed process of LD that is an iterative in nature. This provides a more realistic and evolving process of LD that addresses the messy reality of leadership and LD. Engestrom (2006) states that capturing the contextual background can be unstable since

its elements are in constant motion.

The significant effort and time spent on interviewing the IXT, researching the industry, and co-creating the program with participants led to high levels of buy-in and commitment, relevant development and tangible business outcomes. The temporal context was successfully addressed through the co-creation of the learning journey and the 24 month period of delivery with continuous adjustments to the content and approach.

The use of mindset and practice framework provided a strong base for leaders to learn and grow, enabling them to embrace new ways of tackling the complex challenges of their clients. Also well executed was the methodological context through a combination of self-directed learning and reflection, live webinars with breakouts, podcasts, polls, client action projects, real life complex problem dissolving and a leader action plan (Kelly, 2019; Siemens, 2004).

Future researchers can test and retest the approach in different messy and evolving realities to confirm its efficacy.

7.1.2.3 Contribution to Virtual LD. The third practice contribution is the contribution to virtual LD and how it is evolving as a way forward in the FoW context which provides a more cost effective, evolving and scalable approach to LD. Although not new, the COVID-19 pandemic has accelerated the trends of moving from 'in-person' to blended and virtual. Sowcik et al. (2018) found that on-line delivery programs significantly reduces cost, optimises participant time and provide synchronous and asynchronous learning opportunities (Sowcik et al., 2015, Vallo Hult and Bystrom, 2021). The virtual, real-time delivery of the program optimised cost and time and connected leaders regionally and across levels that had never met before leading to new collaboration opportunities. This echoes several researchers' findings (Sowcik et al., 2015, 2018; Vallo Hult and Bystrom, 2021) that on-line delivery programs significantly reduces cost, optimises participant time and provide synchronous and

asynchronous learning opportunities.

Anecdotal evidence from the interviews and evaluation questionnaires indicate that the fully remote approach delivered impactful development. Future researchers can replicate the approach in future fully remote, large scale LD programs to test the impact on cost, scale and effectiveness.

7.2 Reflexivity and Personal Learning

I have always been fascinated by leadership, complexity, systems thinking and context. This study has provided an opportunity for me to reflect on my practice as a professional with an extensive career in LD. It has given me the insights to create more evidence based and impactful development of leaders in a challenging context of uncertainty and complexity.

One of the most useful lessons for me was being reminded that senior leaders need to stay the course with learning time and financial investment when operational and revenue pressures grow. I was also again made aware of how much needs to happen after the formal program to embed learning and that even further customisation is required to address level and regional differences and ensure that learning is relevant and impactful. I now think more about the ongoing adaptation of the program and not completing the design at the start of the program. The world of work is ever-evolving and therefore leadership and LD models need to evolve with it. Through this study, I have observed the benefits of collective LD using real client cases and strategic challenges to learn in the flow of work and of an organisation that was willing to continue investing in and connecting leaders in complex and uncertain times.

One of the greatest challenges throughout this study has been to continuously adapt to the changing virtual environment, trading conditions and organisational changes that come over a two year period of rolling out a program like this.

It was my objective to conclude the study with what I hope is a useful way for other researchers and practitioners to develop leaders who can thrive in complexity and uncertainty

and therefore create a more sustainable world and organisations that truly care about people. Based on the lessons learnt from the case study, I believe I have been able to demonstrate the usefulness of contextually nuanced, processual models and dimensions in the design and delivery of LD in the FoW context.

7.3 Limitations

There are several limitations to the study which include the generalisability of the results, the limited context of the research and the time-bounded, standardised nature of the case study LD program. Each of these are explained in more detail below.

7.3.1 Generalisability of Results

The first limitation of the study is the generalisability of results as the interviews were limited to 22 for the first two papers and the scoping review to research between 2000-2020 – before the full onset of COVID-19. Most of the thought leaders interviewed were authors of the emerging theme papers cited in this study or leaders/leadership developers who were already addressing the shortcomings of LD in their organisations. The interviews were also conducted before the onset of COVID 19 and with a strong focus on the FoW, without the virtual or hybrid development that are seen as standard convention today, and the scoping review covers the last two decades of research (2000 – 2020). Further themes will have emerged from 2021 and 2022 with a fast-changing environmental context that needs to be considered in leadership and LD.

7.3.2 Limited Context

The second limitation of the study is the limited context in which the models were applied. The models will need to be further validated in more organisational contexts and at all leader levels, as this study focused on a global PSF and on a senior leader cohort. The case study is limited to the large, global PSF sector and 150 senior leaders at the CEO and Business Unit

Leader level. The implications of this are that similar evidence is lacking on how contextual differences in other industries, sizes of organisations and levels of leadership would apply in real-life LD programs.

7.3.3 Time-bound and Standardised Case Study Program

The final limitation of the program is that it was time-bound and standardised. It therefore does not meet the call for developing and measuring leaders over the entire lifespan and over individual trajectories of development. The organisation wanted a standardised approach to the development for all 150 leaders to drive a cultural change and impact growth. Therefore a critical component was not addressed or measured in the program namely that of individual trajectories of development (Day et al., 2014). We need to more fully examine individual differences in developmental trajectories and whether a typology of trajectories can be devised to help us understand and more accurately predict how people change over time. In practical terms this would provide guidance for enabling us to better learn from those who develop more quickly and effectively and to apply the knowledge to help those who struggle to develop as leaders.

The organisation also limited the LD program to a two-year period with a definite end date. This does not adequately address the assertion by Day et al. (2014) that LD needs to be longitudinal in nature. Further work will need to be done on developing methodologies and evaluation methods that can further enhance the impact of LD over the entire lifespan. The challenge is to ensure that mindset changes create habit change and that further reinforcement is used. Senior leaders' appetite for lifelong learning is still in its infancy and more will need to be done to embed this mindset.

7.4 Priorities for Future Research

Looking across the field and taking on board the new contributions to knowledge presented in this thesis, three fruitful next steps for future research are suggested. The

research agenda outlined below aims at enhancing the impact of LD in the context of the FoW.

In the first instance, our understanding of leadership and LD could be improved by making a concerted effort to focus further on the changing nature of the FoW and post COVID context as a primary object of interest.

The context will continue to evolve and leaders will need ongoing development and embedding. Day, Fleenor, Atwater, Sturm and McKee (2014) have observed: "there are potential developmental implications associated with just about every published leadership article" (p. 80). It would be pertinent in future research to conduct more interviews and write up further case studies to validate and expand the model for virtual or hybrid delivery mode post COVID 19. Another significant development at the end of 2021 was the adoption of COP26 outcomes. Including research of interviews with ESG (Environmental, Social and Governance) experts and the impact of ESG goals on leadership and LD will further enhance this model.

Secondly, LD programs should be studied over multiple years to assess how the programs evolve according to the contextual dimensions proposed and how leaders are practicing leadership.

Longitudinal studies and tracking of leaders ability to effectively perform and adapt in the FoW context will need to track over several years. As Day et al. (2014) write, "if leadership is a process and not a position, and LD is a longitudinal process involving possibly the entire lifespan, then we need to put forward comprehensive process models and test them appropriately" (p. 79). They further write that extensive literature on expertise and expert performance shows that it generally takes 10 years or 10,000 hours of dedicated practice to become an expert in a given field and that it is therefore highly unlikely that anyone would be able to develop fully as a leader merely through participation in a programs. The implication

is that further research is needed into what happens in the everyday lives of leaders as they practice and develop.

7.5 Critical-reflective Evaluation of the Study

The purpose of this study was to develop and apply context-rich leadership and LD models fit for the FoW environment.

This was achieved by developing and testing more integrated and context-rich leadership and LD themes and models in the context of the future of work.

The research questions were further answered in the following ways:

Q1. What are the emerging themes of research and practice of leadership in the FOW?

Day et al.'s (2009) model provides us with a strong starting point to develop an updated and integrated model for Leadership 4.0 but based on my insights gained from the literature review and interviews with thought leaders about current changes in practice, it misses critical components and details needed to operationalise it.

I argue, based on my research – the literature review and the interviews - that context, levels of work, underpinning mindsets and morals and ethics need to be added to enhance the model.

The integrated meta-model structure I propose is a four-layer model set in context and eco system resting on a growth mindset, curiosity and learning agility.

Q2. What could an integrated model of LD in the FoW look like?

A future-fit LD model comprising six context-embedded dimensions (environmental context, developmental, relational context, processual, temporal, technological) was developed based on emerging research and practice themes.

The development of an integrated, evidence-based LD model based on contextual dimensions is timely to help researchers and practitioners assess and pivot their current approaches.

The frame of constructivist approaches has been proposed as a better fit for the FoW because knowledge and competencies are becoming more transient due to the rapidity of change in the FoW context. Development grounded in adult development and transformative learning and supported by technology provides ongoing, lifelong learning at scale and collectively. Virtual LD is now a proven method for delivering programs that accelerate the speed and impact of learning and can scale to meet the needs of global enterprises.

Q3. How can the integrated models of leadership and LD fit for the FoW context be applied in a real-life and virtual LD program?

The models of leadership and LD were applied to the design and delivery of a senior, virtual LD program in a PSF over two years (2020-2021). Impacts of the program and lessons learnt were based on six interviews with Program Coaches and IXT members, 63 participant questionnaires, and sales results of nominated clients.

Interviews with the Executive team indicated that the learning objectives were met, and the program was well received in particular noting great facilitation, content, and engagement throughout. Specifically, since the program was tailored to their specific context, the interviewees observed that participants had developed a much greater understanding of their role in driving commercial outcomes, leading their teams and displaying longer term thinking. Interviewees also reported a noticeable improvement in leaders' growth mindset, self-awareness, and collaboration. The collective nature of the program and client action groups created new relationships, cross lines of business opportunities and broke down regional barriers.

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APPENDICES

APPENDIX A. Literature scoping review for "Leadership development in context 2000-2020"

Journals with IF > 2 publishing context-driven leadership development articles

Publication	No. of articles	Impact Factor
The Leadership Quarterly	30	10.517
Harvard Business Review	3	5.694
Academy of Management	7	7.571
Human Resource Development Quarterly	2	3.688
Journal of Applied Psychology	2	5.851
Journal of Management	2	8.88
Corporate Governance	2	3.28
Human Relations	2	5.03
International Journal of Management, World Education, Journal of Management Studies, Educational Administration Quarterly, Journal of Leadership and Organizational Studies, Management Communication Quarterly, Educational Management & Administration, Human Resource Planning, Management Learning, Educational Review, Research in Organizational Behavior, Organization Studies, Journal of Management Development, Journal of Organizational Behaviour, Leadership and Organizational Development Journal	1 each (15)	2 and above
TOTAL	**65**	

APPENDIX B: NVivo analysis of literature scoping review for "leader and leadership development"

High level theme	Sub theme	% cover in literature
Criticism of leadership development	Competency and behaviour-based Functionalist approach only, Horizontal development only	0.91%
	Decoupling of context	0.85%
	Individual focus	0.72%
	Not evaluated/not impactful	0.40%
	Disparate research and theory	1.11%
Emerging approaches for leadership development in complexity	Adult and vertical development	0.34%
	Blended and digital	0.48%
	Collective AND personalised	0.71%
	Embedded in context, Prepare leaders for complexity and messy realities	0.72%
	Immersion, experience, reflection and practice used, critical perspectives, transformative learning, constructivist	3.13%
	Co-designed lifelong learning journeys, tracked, evaluated and adjusted	0.49%

APPENDIX C: Semi-structured interview questionnaire for Leadership and Leadership Development Models

PHD Questionnaire

My name is Marianne Roux and I am a PhD candidate at the UQ Business School. As part of my study, I am investigating a new way to build an integrated leadership definition and model that addresses current leadership challenges in a sustainable way. I am also developing a measurement instrument that will assess leadership gaps.

As an expert in leadership or senior leader, I need your assistance in gathering data to ground my definition in and model and develop items for an assessment instrument that would help us identify development areas and design interventions that could lead to more effective leader outcomes.

The data will be managed anonymously and the only identifiable factors will be the ones asked on the next page.

The questionnaire will be sent beforehand and then followed up by a telephone interview. It should take about an hour to fill in and the phone call/Skype call will last 45 minutes to an hour.

PLEASE COMPLETE (tick or write)

<u>I am a:</u>

- Leadership expert
- HR or Learning Director
- CEO/Board Director

<u>I work in a:</u>

- Small (1-50)
- medium (50-2000)
- large organisation (2000+)

<u>I work in:</u>

- Asia Pac
- EMEA
- Europe
- UK
- USA

<u>Describe your industry i.e. NFP, Oil and Gas, Tech</u>

<u>I am:</u>

Male

Female

Other

QUESTIONS

1. **What have been the biggest changes and challenges for you in leadership over the last few years? (1a)**

2. **Can you describe someone you admire as a great leader? What are their characteristics, behaviours, competencies? (1a)**

3. **Please describe your current leadership development model. (1b)**

4. **Please define effective leadership. (1a)**

5. **What role does ethics, morals and values play in effective leadership? (1a)**

6. **Please describe any assessment tools you are using to determine leadership gaps in your organisation. (1b)**

APPENDIX D: WordItOut word clouds of semi-structured interview data for Leadership and Leadership Development Models

The Combined Views of 22 Thought Leaders on the Changes and Challenges Leaders Face in the New World of Work.

The Combined View of 22 Thought Leaders on Their Current Approach to Leadership Development.

APPENDIX E. Triangulation of scoping review and semi-structured interviews for models of Leadership and Leadership Development

Literature review themes	Interview themes
An over focus on competency and behaviour, functionalist approaches	Criticism of the competency/functionalist approach
Development based on adult and vertical development	Based on adult development and complexity
A focus on collective AND individual development	Collaborative and social
Embedded in context and messy reality	Embedded in context and messy problems
Transformative, constructive learning pedagogy used – immersion, experience, reflection and practice	Experiential and reflective learning and practice.
Co-designed lifelong learning journeys that are evaluated, tracked and adjusted in real time.	Lifelong development journeys
A blended, virtual and digital approach	

APPENDIX F: Case study interview with PSF executives and coaches

Dear

As a coach of the CALP program, we would like to invite you to an interview to understand your perception of how well the program has met the learning objectives and growth expectations set. The questions we will be asking during this 45 minute, recorded zoom interview will be as follows:

- How well has the program met the learning objectives (see below)?

- What changes have you observed in the leadership behaviour and mindsets of the participants?

- What changes did you observe in the sales and business development approaches and results achieved by the participants?

- Where did the program miss the mark?

- What would you like to see done differently/better?

Learning objectives

1. For all leaders to understand what is expected of them and how they will achieve commercial growth in the next 5 years in a sustainable, co-created way;

2. To develop a mindset for growth, key capabilities and key set piece routines that will be instrumental in accelerating growth across the business in a purposeful, human centred way; and

3. To collaboratively work on the commercial challenges and organisational barriers across the organisation in this experience, through experimentation, learning,

implementing and future skills building.

The interview will be recorded and your responses included anonymously with those of other Sponsors. The use of the data will be two-fold:

a) It will be combined with the final learning evaluation results from the 150 participants and a report prepared on the outcomes and future recommendations of the CALP program

b) It will be combined with the client acquisition and growth data of the clients selected by participants for the client challenges and

c) It will form part of a published case study paper on senior leadership development in virtual and complex environments. The organisation will not be identified.

As a sponsor, you will be provided with the full report and a presentation of the results of the evaluation of the program which will provide input into the design of the program for the future.

Please reach out with any questions or if you would prefer not to participate in these interviews.

Kind regards

Rachel Crowley

PROJECT MANAGER

APPENDIX G: Case Study Participant Evaluation Questions

BUSINESS UNIT

COUNTRY

LEVEL

Likert scale 1-7

1- Strongly disagree

2- Disagree

3- Somewhat disagree

4- Neither Agree nor Disagree

5- Somewhat

6- Agree

7- Strongly Agree

Question	1	2	3	4	5	6	7
1- Did this program help you to make sense of and respond more effectively to an increasingly complex and uncertain environment?							
2- How effective were the virtual methods used in this development program?							
3- Did your view of what it takes to be a leader and how you lead change as a result of this program?							
4- Did you gain the mindsets, skills and knowledge							

Question	1	2	3	4	5	6	7
you needed to be a more effective leader?							
5- To what extent do you feel you can apply the mindsets, skills and knowledge to your work?							
6- To what extent did this program develop your network and ability to work across the firm?							
7- To what extent has the training helped you and your team to achieve your goals in terms of client growth?							
8- Have the clients noticed and appreciated the difference in your approach?							
9- Have you been promoted or your role extended since the start of the program?							
10- Overall, how effective and worthwhile would you rate the program?							

APPENDIX H: ETHICS APPROVALS

THE UNIVERSITY OF QUEENSLAND
Sub-Committee Human Research Ethics Approval

Project Title:	Ethical, self transforming leadership: A necessity for creating a sustainable world
Chief Investigator:	Ms Marianne Roux
Supervisor:	Prof Charmine Hartel
Co-Investigator(s):	None
School(s):	UQ Business School
Approval Number:	2017000160
Granting Agency/Degree:	PhD
Duration:	31st March 2021

Comments/Conditions:

- UQ Business School application, 07/02/2017
- PhD Questionnaire, 16/02/2017
- Participant Information Sheet, 07/02/2017
- Participant Consent Form, 07/02/2017
- Cover letter, 07/02/2017

Note: if this approval is for amendments to an already approved protocol for which a UQ Clinical Trials Protection/Insurance Form was originally submitted, then the researchers must directly notify the UQ Insurance Office of any changes to that Form and Participant Information Sheets & Consent Forms as a result of the amendments, before action.

Name of responsible Sub-Committee:
University of Queensland Business, Economics & Law, Low & Negligible Risk Ethics Sub-Committee
This project complies with the provisions contained in the *National Statement on Ethical Conduct in Human Research* and complies with the regulations governing experimentation on humans.

Name of Ethics Sub-Committee representative:
Associate Professor Lana Friesen
Chairperson
University of Queensland Business, Economics & Law, Low & Negligible Risk Ethics Sub-Committee

17/02/2017

Signature _____   Date _____

Swinburne University of Technology Human Research Ethics Committee

Approval certificate

24/02/2022

The ethics application for your project Development, implementation and evaluation of a virtual and global senior leader development program has been approved.

Chief Investigator: Sen Sendjaya

Ref: 20225534-9358

Approved Duration: 24/02/2022 to 24/02/2024

I refer to the ethical review of the above project protocol by Swinburne's Human Research Ethics Committee (SUHREC) or its sub-committees.

I am pleased to advise that, as submitted to date, the project may proceed in line with standard on-going ethics clearance conditions outlined below.

- The approved duration is as shown above unless an extension request is subsequently approved.
- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the *National Statement on Ethical Conduct in Human Research (2018)* and with respect to secure data use, retention and disposal.
- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in Chief Investigator/Supervisor, and addition or removal of other personnel/students from the project, requires timely notification and SUHREC endorsement.
- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance from SUHREC for approval. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.
- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project.
- A duly authorised external or internal audit of the project may be undertaken at any time.
- Please forward this approval certificate to relevant members of the project team.

This research project was approved during COVID-19 restrictions. The conduct of the research during this period should reflect any changes in relation to university and government COVID-19 mandates in the relevant jurisdictions. To ensure you have accommodated these mandates please refer to the Swinburne Ethics COVID-19 website here.

The following investigators have been approved to work on the project:

Chief Investigator

Sen Sendjaya

Associate Investigators

Jonathan Reams

Student Investigators

Marianne Roux

Please contact the Swinburne Research Ethics Office if you have any queries.

Regards,

Ms Leah Barham

on behalf of

Research Ethics Office

Swinburne University of Technology

P: +61 3 9214 8145 | E: resethics@swin.edu.au

APPENDIX I: Proof of Submission to Journal of Management Inquiry

Submission Confirmation Print

Thank you for your submission

Submitted to
Journal of Management Inquiry

Manuscript ID
JMI-22-0073-EMP

Title
Leadership Development for the Future of Work: A Contextual and Processual Perspective

Authors
Roux, Marianne
Sendjaya, Sen
Reams, Jonathan

Submitted
26-Mar-2022

APPENDIX J: Proof of Submission to Business Horizons

Professor Roux:

Thank you for submitting your manuscript, "Context matters: Lessons from a senior leadership development program," for review and consideration for publication in *Business Horizons*. We have assigned the manuscript reference number BH #22071. Please use this number in all communications with us regarding this submission. Our aim is to provide authors with timely feedback regarding their submissions. Thank you for considering *Business Horizons* as a primary outlet for your scholarly work.

Sincerely,

Lisa Faye Miller
Managing Editor, *Business Horizons*