Transformational Leadership and Organizational Maturity in the Digital Era

Theories, Models, and Practices

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2 Why do we need transformational leaders, and why should they be transformational?

This chapter addresses a fundamental question regarding the necessity of transformational leadership and examines the phenomenon of leadership through an interdisciplinary lens. In addition to organizational studies, it considers perspectives from political science and international relations. This integrated approach is particularly relevant due to the increasing convergence of management and politics, a trend notably observed during the presidential tenure of Donald Trump, reaching unprecedented levels. Furthermore, the multifaceted nature of leadership warrants examination from diverse scholarly disciplines, including psychology, sociology, management, political science, and international relations, as it remains a central subject of inquiry within these fields. Gundling et al. (2011) highlight that the study of leadership extends beyond the traditional domains of management and politics due to prevailing megatrends (see Section 2.1), attracting broader academic and practical interest in its global dimensions. Critically, and pertinent to this study, this heightened attention stems from the observation that the various changes and transformations detailed in subsequent sections of this chapter necessitate effective leadership at all levels, extending beyond top executive roles, to navigate global complexities.

Additionally, Riggio (2011) claims that, at the current stage of its development, leadership studies deserve and might soon become a separate scientific discipline (Riggio, 2011 in Harvey & Riggio, 2011). Taking into consideration the time he postulated it, this may happen really soon. The author of this book shares this view and looks forward to its realization, namely, the emergence of leadership studies as a separate discipline with academic recognition.

2.1 Leadership in the context of current megatrends

In the light of what has been presented earlier, the starting point for the further discussion is the assumption that local contexts and global megatrends require a new type of leadership. Regardless of the local contexts, which

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may be uncountable, global megatrends, or big transformations, constitute challenges to all leaders, everywhere, and practically on all operational levels. This is why, regardless of the type of organization and area, or sphere of operation, leaders who are capable of addressing these challenges effectively are needed. This gives another dimension to the concept of a transformational leader. It means that not only do transformational leaders need to transform themselves by shifting and changing their practices and attitudes, but from the bigger perspective they also need to address the challenges of four big transformations: (1) *social*; (2) *digital*; (3) *global labour market*; and (4) *demographic*, which constitute the main pillars of the new design the current worldwide socio-economic realm depends on.

2.2 Social transformation

Davidow and Malone (2020) describe in detail the current social transformation, which they call the autonomous revolution. According to them, this is the third social revolution in human history, preceded by the agricultural and industrial revolutions. All three revolutions have given rise to and fostered the creation of big empires. What differs the current social revolution from the past two ones is that we are witnessing the emergence of an entirely new territory, which is the virtual realm embodied by unimaginably powerful corporations such as Facebook, Google, and Amazon. This dramatically changes the way we live and work today. On the practical level, the autonomous revolution is about changing our relationships with intelligent autonomous machines. On a more general level, the autonomous revolution, like every revolution, results in new infrastructures, as well as new forms of society, commerce, governance, and belief systems. In the sphere of economy, it is accompanied, and actually driven, by the Fourth Industrial Revolution, or Industry 4.0, which is characterized by integration and automation. The problem is that the speed of change within the autonomous revolution is unprecedented, which means that it may be difficult for individuals or organizations to catch up and adapt. Davidow and Malone (2020) stress that the failures in addressing the challenges posed by the previous two social revolutions, agricultural and industrial, led to wars and human tragedy. However, they also state that intelligent and aggressive management of the changes we face may lead to building stronger communities, more efficient governance, increased productivity, greener economy, better healthcare, customized products, and services of higher quality (Davidow & Malone, 2020). Similar benefits but also concerns resulting from threats connected with the change or shift of power and values are shared by Susskind (2020), Daugherty and Wilson (2022), and Suleyman (2023). The latter calls the current social revolution 'the coming wave'. By analogy to Davidow and Malone and their revolutions typology, Suleyman

(2023) sees human history with the rises and falls of empires from the perspective of metaphorical waves. What is crucial here is that he stresses the transformational character of such waves. Davidow and Malone (2020) conclude that to benefit from the current revolution, we need great leadership to get us through the process.

2.3 Digital transformation

The autonomous revolution as a social transformation has an overarching character impacting all spheres of our life, on the one hand, but it is, in a way, also a function of a digital transformation, on the other hand. The World Economic Forum (2017) perceives digital transformation as one of the most pressing challenges for organizations. The McKinsey 2024 report adds that

> digital transformation is the rewriting of an organization, with the goal of creating value by continuously deploying tech at scale. A clear digital transformation strategy focused on specific domains and enabled by a set of specific capabilities is critical for organizations to not only compete but survive.
>
> (McKinsey, 2024)

Basically, researchers perceive digital transformation as a process which, with the use of digital technologies, leads to achieving better efficiency, organizational potential, strategic advantage, and business results (Liu et al., 2011; Westerman et al., 2011, 2014). However, the organizational potential is understood here and will be expressed in further discussion as organizational maturity. Other researchers also add that digitalization of analogue resources results in cost reduction and acceleration of processes (Collin et al., 2015; Kane et al., 2015). Digital transformation may also help organizations expand their communication with customers or stakeholders (Berman, 2012). The benefits resulting from digital transformation may be multiple, and inevitably digital transformation leads not only to new products and services but, first of all, to new business models and the transformation of functions, roles, and values in organizations (Dorner & Edelman, 2015; Hess et al., 2016; Kaufman & Horton, 2015; Parvianen et al., 2017; Schallmo & Williams, 2018; Schuchmann & Seufert, 2015). Yet, technological advancement may deprive people of work; it also changes the value of work and threatens privacy (Davidow & Malone, 2020).

Although technological advancement may have some disruptive effects on business and governments, digital transformation is the only way to cope with the challenges of the present, according to Siebel (2019). In his view, cloud computing, big data, artificial intelligence, and Internet of Things

define how business and government will operate in this century. He also perceives digital transformation as a strategic opportunity. A similar view on both disruptive difficulties and tremendous opportunities that digital transformation may bring in relation to new value offerings, business models, and organizational practices is shared by various researchers (Gong et al., 2023; Buła & Niedzielski, 2022). In addition, Gong et al. (2023) stress that in most cases the process of digital transformation is rather slow since it requires radical changes at the organizational level, whereas leaders and executives tend to aim at introducing incremental changes. Considerable research shows that the process of change is especially risky when this change disrupts established routines, roles, and procedures within an organization, and organizations are rather rewarded for remaining relatively inert since constant change proves to be disruptive to the point of being life threatening in survival on the market (Barnett, 2008).

Despite potential threats of various sorts, Sforcina (2023) also perceives digital transformation as a remedy for true and permanent sustainability. She mainly looks at the issue of digital transformation from the point of view of disruptiveness caused by the COVID-19 pandemic and civilizational development that is more and more resulting in ecological disasters. She claims that digital transformation, powered by such technologies and solutions as digital access, 5G, cloud, Internet of Things, artificial intelligence, extended reality, and blockchain, can scale sustainability solutions exponentially. She calls it sustainability 2.0 as opposed to sustainability 1.0, whose tools, such as 'green' policy, are not satisfactory and have turned out inappropriate to the pace of changes and impacts such as growing population versus diminishing resources. Numerous challenges we have to tackle in relation to planetary sustainability require radical solutions that may put us on a trajectory that is scaled accordingly. This trajectory of sustainability 2.0 is based on digital transformation. Sforcina (2023) also supports her view with examples. Technology can bring a 20% reduction of CO_2 emissions by 2030 when applied to such sectors as mobility, manufacturing, agriculture, energy, and construction. Technological solutions may contribute to the reduction of the embodied materials in goods by 90% (Sforcina, 2023). Examples can be multiple. Kotter et al. (2021) also prove through their research that incremental improvement is no longer sufficient in helping organizations navigate the complexity, uncertainty and volatility of the world nowadays and that fast-changing environments and ecosystems require rapid adaptability (Kotter et al., 2021). The issue of deciding too late and paying the price for slowness or lack of courage in relation to leaders of the future is also raised by Johansen (2012). He also claims that in troubled times of the current world of volatility, uncertainty, complexity, and ambiguity (VUCA), leaders judge too simplistically and often react with anger and disdain. Yet, he

thinks that, with a proper set of skills and abilities, leaders can still make the future great (Johansen, 2012).

Concluding, the successful journey through such a transformation with all its threats and potential benefits for society can only be guaranteed by great leadership with authentic, adaptive, visionary, inspirational, ethical, servant, inclusive, and innovative leaders. Furthermore, as Hanlon shows, an innovative approach to digital transformation is, in fact, a remedy for disruptiveness that technological advancement itself is causing (Hanlon, 2024). Yet, it is not all about technology. Sulkowski et al. (2024) stress that the digital transformation era requires leaders to be not only technologically adept but also acute in perception and sound in judgement. Delegating tasks to machines does not mean delegating responsibility for one's actions within those tasks. Responsibility stays with the leaders (Sulkowski et al., 2024). This philosophical perception on the leadership of the future with artificial intelligence being part and parcel of our existence, both personal and vocational, refers, on the more practical level, to what is postulated throughout this book and is reflected in the proposed research model, namely, that digital transformation and transformational leadership are also about social aspects and not only technological ones. This is crucial since one of the inevitable consequences of digital transformation is that, as Agerwala claims, leadership of the future is a system of humans and computers interacting in natural ways, learning from each other, and eventually gaining higher collective effectiveness, which would not be possible for a single leader to achieve in the times of exponential growth of data (Agerwala, 2020 in Bodhananda et al., 2020).

2.4 Global labour market transformation

In light of the ongoing discourse on the nature of the current autonomous revolution, propelled by rapid technological advancement, two principal conclusions emerge. First, autonomous and intelligent technologies, particularly those leveraging artificial intelligence, have the potential to act either as a catalyst for societal progress or as a force that may precipitate the decline or collapse of civilization. While such technologies enhance efficiency through automation and the integration of complex processes, they also evoke concerns regarding large-scale job displacement. Reports increasingly highlight the impact on certain professions, such as drivers, whose roles are being supplanted by autonomous vehicles, as well as accounting and legal services, which are increasingly supported or replaced by intelligent systems. These examples represent only a fraction of a much broader trend.

However, Knickrehm (2019) states that views in this respect vary dramatically: some say that half of the jobs in the U.S. economy may become

obsolete, and others claim that machines create jobs, also new kinds of jobs (Knickrehm, 2019). It is hard to resist at this stage not to refer to the Industrial Revolution with the appearance of the steam engine. In Great Britain, the movement called 'Luddism' (Petch, 2002) was created by workers who destroyed machines since they perceived them as a threat to their jobs. Now, from a historical perspective, we know that Industrial Revolution created and brought new jobs to the market. Menon (2019) stresses that the introduction of machines and computers, as well as a higher and higher level of automation, creates more jobs than they take away (Menon, 2019). And since some say that history likes to repeat itself, we may expect the same effect now. The key issue, however, is that those new jobs require new qualifications and competences that many of those already existing on the labour market may lack (Lund & Hancock, 2021, in Wingard and Farrugia).

In the contemporary technological landscape, characterized by heightened competitiveness, a novel leadership paradigm is necessitated. This assertion is supported by a Deloitte (2019) study, which concludes that evolving socio-economic conditions require leaders to navigate complexity and manage a hybrid workforce comprising both human and machine elements, often in remote settings. Leaders in this new transformational era must possess robust technological proficiencies, demonstrate a rapid capacity for knowledge acquisition, and communicate effectively both internally within organizational teams and externally. The concept of effective communication, in this context, encompasses a broad spectrum of social skills that facilitate successful functioning and collaboration with teams. Recent literature emphasizes two overarching characteristics that encapsulate the essential features of effective leadership: collaboration and adaptability. Ferrazzi et al. (2022) highlight the critical role of collaboration and rapid adaptability as key determinants of effectiveness in the modern work environment. Hennessy (2018) similarly posits that 'leadership is, in fact, all about collaboration and teamwork' (Hennessy, 2018, p. 83). Likewise, Ibarra and Hansen (2020) identify collaboration as a fundamental attribute defining leadership. These considerations are foundational to the research presented in this publication, which focuses on international, collaborative projects spearheaded by innovative or transformational leaders.

2.5 Demographic transformation

Reports from the United Nations (2019) indicate a projected sharp decline in the working-age population by 2050, with reductions exceeding 20% anticipated in major developed economies such as Japan, Germany, and Italy. This demographic shift will consequently lead to a shortage of skilled and qualified labour due to retirements and gradual workforce withdrawal in these nations. Conversely, other countries are expected to experience

substantial increases in their working-age populations, with projections reaching approximately 30% in Australia and India and over 40% in Saudi Arabia, signifying a trend towards a growing younger workforce.

The increasing share of trade in the GDP of developed countries underscores the growing integration of the global economy (World Bank, 2019). This globalization, along with the integration of goods, services, and markets, has facilitated a rapid reduction in communication and transportation costs (Stiglitz, 2013). Such developments have inevitably accelerated the dissemination of innovations and technological progress. From this perspective, significant global impacts on labour market trends may not be as pronounced as localized and regional disturbances in the distribution of work worldwide. These shifts, in turn, are likely to reshape leadership demands.

Gundling et al. (2011) emphasize that the general trend of significant population growth in developing countries, contrasted with stagnant population sizes in the developed world, will have profound implications for future markets, consumer demands, workforce demographics, and talent availability. Furthermore, Gundling et al. (2011) highlight a changing balance in global GDP resulting from world population growth structures. Consequently, the demand for not only basic commodities but also high-tech products and services will increasingly originate from developing countries. Given that these developing economies, particularly in the East, may not always align with Western values, future leaders will need to adapt to evolving market structures and diverse value systems. This paradigm shift will be further propelled by rapid urbanization in Asia and Africa, as urbanization inherently fosters increased consumption due to the emergence of new consumer segments with distinct needs, thereby creating new markets.

Gundling et al. (2011) identify three megatrends: population growth in the developing world, shifts in the balance of global GDP, and rapid urbanization in Asia and Africa. In the context of this discussion, these changes are considered components of a broader phenomenon. While Gundling, Hogan, and Citkovich's conceptualization primarily addresses demographic transformation and its associated social and market implications, the discussion proposed in this publication offers a slightly broader and more comprehensive perspective. It incorporates technological advancement as an equally influential factor in reshaping social and economic structures, patterns, and associated values. Moreover, social changes are viewed from a wider perspective than solely as a function of demographic trends. A perfect categorization and typology remain challenging given the intricate intermingling of these mega-changes. Regardless of the specific categorization of these pervasive trends and their impending consequences, it is evident that transformational leaders will be universally sought as challenges, such as innovation and adaptation to this new demographic landscape, increasingly assume a global and universal character.

2.6 Leaders: saviours or threats in the current transformational era

The contemporary era is characterized by an unprecedented increase in individual power within economic and political spheres, significantly impacting global markets, stock exchanges, broader social life, and even the geopolitical trajectories of nations, as exemplified by the situation in Ukraine. Statements and perspectives disseminated via social media platforms like X (formerly Twitter) by prominent figures such as Elon Musk or Donald Trump, and their subsequent actions, irrespective of their perceived positive or negative, visionary, or rash nature, exert immense global influence. Such interventions possess the capacity to initiate or cease conflicts and fundamentally reshape socio-economic structures that underpin human existence. The disruptive potential of these actions can be likened to a global tsunami, instantaneously altering individual lives, work paradigms, consumption patterns, and perceptions of reality. In this context, the influence of individual leadership, whether constructive or destructive, possesses a global dimension.

Furthermore, there is an observable and increasing convergence between economic and political leadership. On the one hand, one can see the implementation of business strategies into public management, whose best example is President Donald Trump. On the other hand, Silicon Valley magnates are no longer exclusively perceived as anti-establishment innovators whose creations enhance access to information, tools, and resources, thereby disrupting monopolies and fostering independence from governmental entities or even traditional currencies, ultimately expanding individual freedoms. However, Bartlett (2018) contends that the foundational myth of 'hacker culture' associated with social media no longer holds true. Instead, social media founders have transitioned from bureaucracy-averse technology enthusiasts to influential capitalists who, with the aid of psychological insights, manipulate users to facilitate purchases on their platforms and encourage constant mobile phone engagement to stimulate dopamine reward systems through social media activity (Bartlett, 2018). This phenomenon suggests an emergent era of technological subjugation. The utopian vision of technologically empowered democracy is perceptibly shifting towards a dystopian reality as tech tycoons increasingly ally with political actors to achieve corporate, political, and geopolitical objectives. These objectives frequently prioritize their own agendas or global macro-policies over the individual needs of citizens and consumers.

Mark Zuckerberg, the founder of Facebook (now Meta), serves as a notable example. A decade ago, he was widely regarded as an archetypal passionate and visionary transformational leader who cultivated innovation and empowerment within his organization (Walter, 2013; Robbins et al., 2015). However, recent controversies surrounding data protection have

significantly undermined Zuckerberg's standing as a transformational leader for the foreseeable future. Moreover, along with other CEOs of influential social media platforms, including Meta, X, TikTok, Snap, and Discord, he has been subjected to questioning before the U.S. Congress regarding alleged harms to young users of these platforms.

The perceived alliance between prominent business and political figures, exhibiting anti-democratic tendencies, was notably exemplified during Donald Trump's inauguration as the 47th President of the United States. During this event, leading figures from the American technology sector, including Mark Zuckerberg (Meta, Facebook, Instagram), Elon Musk (Tesla, Space X, and X social media platform), Jeff Bezos (Amazon, Washington Post), and Sundar Pichai (Google), were prominently aligned with him, suggesting a sustained engagement or even formal partnership. This alignment can be interpreted as a reciprocal leveraging of influence for personal and organizational benefits, such as political advancement or increased asset capitalization. This perceived 'marriage', rather than being founded on shared ideological principles, appears to be based on pragmatic, calculated business interests.

The anti-democratic implications of this phenomenon can be analysed on multiple levels. Firstly, these technological oligarchs collectively represent a substantial portion of American GDP and simultaneously exert control over highly influential media platforms, both domestically and globally. This dual influence grants them considerable power to shape public perception and consumer demand for their products (e.g., electric vehicles) and to garner support for their initiatives, which may range from visionary to seemingly capricious (e.g., interplanetary travel). Secondly, and more directly addressing the core issue of an emerging anti-democratic pattern, are the public sentiments expressed by protestors. For instance, banners displayed during a protest against Elon Musk's perceived influence on government efficiency on 5 February 2025, in front of the Capitol in Washington, D.C., notably stated: 'Nobody elected Musk'. This reflects a growing public concern regarding the unelected power wielded by technological elites.

Consequently, the current landscape suggests the emergence of a novel form of oligarchy, empowered by the ongoing digital transformation. This technological oligarchy may pose a greater threat and induce more pervasive disruption across various spheres of global socio-economic life than, for instance, traditional economic oligarchs (e.g., those associated with the Russian model). The mechanisms through which this anti-democratic pattern is established are often more subtle and veiled. Nevertheless, the ultimate outcome, as articulated by Suleyman (2023), is an unavoidable 'coming wave' of a façade democracy, presented in an appealing and attractive manner by contemporary leaders.

Accordingly, Fukuyama's original thesis of 'the end of history' (Fukuyama, 1992) has necessitated revision, even by the author himself, in the light of events and phenomena such as 11 September 2001, the Orange Revolution in Ukraine, the Arab Spring, the increasing global influence of Russia and China, and, notably, threats emanating from technological advancements, particularly in biotechnology. Therefore, the trajectory offered by political and major business leaders is not an evolutionary process towards a predominant liberal democracy as the ultimate meta-level organization of humankind. Instead, it represents a dynamic fluctuation between extremes, akin to a pendulum's oscillation. In this contemporary context, the pendulum's movement is driven and balanced by the dualistic nature of technological transformation, as elaborated in Section 2.3.

Furthermore, this duality inherent in what might be termed 'mega-leaders' is discernible not only in their evolution from initial roles to their current influence but also at individual and organizational levels. While Elon Musk's political engagements may be viewed with apprehension by some, his companies have undeniably achieved substantial success by disrupting established monopolies and paradigm shifts. Tesla's pioneering efforts in automotive energy transformation have, despite significant lobbying from the petroleum industry, opened new avenues for sustainable mobility. Similarly, Space X, in conjunction with Bezos's Blue Origin and Branson's Virgin Galactic, has challenged NASA's traditional monopoly in space travel services, offering more cost-effective and, in some cases, more sustainable (e.g., reusable spacecraft) alternatives. Although certain actions, such as Elon Musk's widely publicized launch of a Tesla vehicle into space, have raised concerns regarding orbital debris and potential threats to existing satellites and objects, this perceived extravagance is sometimes weighed against the broader developmental advancements. This is not to suggest, however, that all aspects of these enterprises are environmentally benign, given allegations surrounding Tesla's production model. Nevertheless, such allegations may be influenced by competitive industrial lobbying. Ultimately, the positive contributions of these entities would not be possible without the substantial organizational maturity they represent. This reinforces the notion that various levels of analysis – individual and organizational – exhibit both positive and negative aspects. Consequently, a comprehensive discussion of leadership, particularly within the research component of this study, must address both individual and organizational dimensions.

2.7 Concluding remarks

Firstly, in the context of the digital freedom paradox explained in the following text, the imperative for human-centric leadership is postulated. The pervasive accessibility of the Internet, advanced technological developments,

and, increasingly, artificial intelligence – often provided 'for free', as exemplified by controversial platforms like DeepSeek – evokes an analogy to Plato's Allegory of the Cave, highlighting a significant divergence between perceived and actual reality. Furthermore, this situation compellingly brings to mind Huxley's *Brave New World*. While ethical considerations stemming from this technologically advanced world are widely discussed, most remain unresolved, akin to a perpetual 'work in progress'. From this perspective, the role and necessity of effective leadership in this new context become clear. We must revisit the insights of Aldous Huxley, who, a century ago, warned against totalitarian regimes, such as communism and fascism, that sought to control populations through behavioural conditioning and optimization. Unfortunately, technology appears to be performing a similar function. Numerous examples demonstrate how algorithms employed by social media and other AI-powered services condition and manipulate cognitive processes. In China, the government utilizes a social credit system to control and condition its populace. The increasing deployment of robots in factories and the automation and optimization of production processes risk reverting workers to a form of 'new Fordism', where individuals function merely as cogs in a larger machine.

Moreover, the increasing reliance on technology for cognitive tasks – delegating data processing, analysis, and ultimately decision-making to machines – may diminish human critical thinking. AI-driven algorithms now suggest what to purchase, consume, listen to, and watch and whom to follow. In this context, algorithms can, ironically, resolve the 'paradox of choice' as defined by psychologist Barry Schwartz (2016). Schwartz argues that an overwhelming abundance of product choices can lead to discomfort, unhappiness, and decision-making paralysis. Algorithms, by making choices on our behalf, often with a seemingly superior understanding of our preferences, alleviate this paradox. However, by continually feeding algorithms with personal data, individuals may inadvertently weaken their autonomy, while technology gains increasing influence, as our data reveals unconscious desires and characteristics. Consequently, while the paradox of choice may be mitigated, the growing deficit of democracy in contemporary society remains unaddressed. This scenario fosters passive and unreflective consumption of content provided by platforms like YouTube and TikTok, simultaneously diminishing critical and creative thinking skills, which are increasingly vital in the modern labour market (McKinsey, 2018; World Economic Forum, 2020; Forbes, 2023).

Therefore, Huxley's *Brave New World* offers crucial insights, indicating that we are not venturing into terra incognita. Huxley's work, rather than pure science fiction, was a commentary on his contemporary society. He posited that a technologically advanced world risks dehumanizing society and concentrating excessive power in the hands of authorities, governments,

or, as we might say today, Silicon Valley tycoons and technological oligarchs. In our modern era, there is a pressing need for effective leaders at all levels who possess robust social competences and skills to mitigate the potentially harmful effects of technology. The rapid and far-reaching consequences of decisions made by individual top leaders, not always benevolent, necessitate a counterbalance from a new type of leadership. The case of the DeepSeek AI chatbot, for instance, illustrates the blurring boundaries between the global economy, global politics, and social life at both macro and grassroots levels, leading to increased disruption.

Secondly, transformational leadership must be considered as a response to current challenges, from both a local and global perspective. In light of the preceding discussion, it becomes increasingly important to focus on leaders who drive local and regional projects, companies, and initiatives aimed at genuinely enhancing the quality of life. The healthier, more robust, innovative, and visionary this leadership is, the less disruptive the ecosystems in which we live and operate may become. This transformational wave, rather than overwhelming us, could propel our civilizational development forward. History suggests that progress is rarely linear but rather a dialectical process where one pole occasionally predominates over the other. For those interested in a broader philosophical perspective on human history, creativity, and civilizational development, including its linear or spiral modes, works by Graeber and Wengrow (2022) and Harari (2015) offer compelling insights. Consequently, the quality of leadership navigating these turbulent tides of both positive and negative influences is paramount and holds distinct value for societies. The term 'impact' is particularly apt here, as it not only connotes influence but also suggests a forceful, potentially decisive, strike. Therefore, what is required is a sagacious, technologically adept leadership that bridges global technological advancements with a holistic understanding of quality of life and work.

Furthermore, the type of leadership discussed herein inherently possesses a global dimension. As noted in Chapter 1, Gundling et al. (2011) define global leadership through ten key behaviours: cultural self-awareness, inviting the unknown, achieving results through relationships, frame-shifting, expanding ownership, developing future leaders, adapting and adding value, balancing core values with flexibility, influencing across boundaries, and seeking third-way solutions. These characteristics collectively contribute to a broader concept of transformational leadership. When applied to the aforementioned 'mega-leaders', with their innovative approaches, capacity to transcend boundaries, paradigm-shifting initiatives, ability to create wealth for their managers through share allocations (e.g., Apple), fostering of innovation, and unconventional adaptability to changing conditions, it can be concluded that these individuals are substantially transformational, even if some of their methods are deemed controversial or deviate from an idealized

transformational leadership model. Crucially, these ten key behaviours of global leadership should also be considered attributes of transformational leaders at local or regional levels. To be innovative, competitive, and ultimately successful, leaders at all levels must adopt a 'think-outside-the-box' mentality. In a globalized world, the principle of 'thinking globally and acting locally' places leaders at all hierarchical levels at the forefront of civilizational development – they have to react locally to global changes. This is a critical aspect of this discussion, as the research presented in this book focuses mainly on this local and regional type of leadership, examining both individual and organizational dimensions, with its rationale elaborated in the Introduction and Chapters 3 and 4, respectively.

Finally, this discussion leads to the conclusion of the primacy of social competences in relation to organizational maturity in the context of the current technological revolution. Research has consistently demonstrated that, at the individual level, digital transformation primarily necessitates social competences (Poszytek, 2024). This implies that effective leadership in this era relies more on communication, cooperation, innovation, and adaptability than on digital competences themselves. Supporting this perspective, Cyfert et al. (2025) assert that digital leadership acts as a catalyst for transforming organizational culture, leading to the establishment of a digital organizational culture that prioritizes collaboration, experimentation, and continuous learning. They also add that the efficacy of digital transformation is not solely based on the implementation of technological solutions but also on soft management factors (Cyfert et al., 2025). Consequently, the social dimension is the central focus of the presented research on individual leaders (see Chapter 3).

An additional crucial aspect supporting this approach is the assertion by Leonhard (2016) that humanity will experience more change in the next two decades than in the preceding three centuries. Furthermore, due to the exponentially increasing impact of technological changes, the new reality cannot be accurately predicted or extrapolated from past experience. This raises a paradoxical question: how can we be certain that our current perspectives on leadership, and the anticipated requirements for new types of leaders, will remain valid in the face of such profound uncertainty? The answer, paradoxically, is straightforward: while the unknown implications of overwhelming digital transformation, which is disrupting established value systems, cannot be fully predicted, it is certain that regardless of what emerges, leadership will fundamentally remain about human interaction, rather than solely about technology.

A compelling example underscoring the foundational social dimension of leadership comes from David Marquet, a former U.S. Navy captain, based on his experience commanding the USS *Santa Fe*. Marquet (2020) contends that leadership is primarily about language and communication.

Leaders often operate within rigid structures of regulations and technical requirements over which they may lack control, even with high levels of skill and knowledge. What they can control, however, is communication within their team (Marquet, 2020).

Another intriguing dimension of leadership is explored by Laurence Gonzales, an American journalist and advisor to diverse groups ranging from Navy SEALs to the MIT Sloan School of Management. In his best-seller, *Deep Survival*, Gonzales examines survival and leadership from both a multidisciplinary scientific perspective and through numerous accounts of critical situations, including his own experiences (e.g., jungle survival, fire-fighting, military operations). The principles he developed in *Deep Survival* are applicable to any life challenge, from financial crises to life-threatening illnesses or addiction recovery. One key principle is that when confronted with adversity, such as wilderness or other threats, elements like equipment, training, and experience, while beneficial, are not decisive and can even prove deceptive. What truly matters, first and foremost, is the proper mind-set and emotional fortitude (Gonzales, 2017). One could further argue that intuition and 'gut feeling' often outweigh sophisticated and meticulously planned strategies. This phenomenon, extensively translated into management studies, is vividly depicted by Czakon (2024), who emphasizes the rarity of ideal situations where predetermined strategies are perfectly effective. Consequently, improvisation often substitutes for detailed planning and pre-formulated strategic decision-making. This approach is firmly rooted in Handy's concept from over 30 years ago, which advocates for an 'irrational' approach to managing change (Handy, 1991). Handy (1991) argues that in an era of constant and unpredictable change, it is essential to break from traditional thinking and leverage change to one's advantage. He examines how rapid developments in technology and the increasing demand for cognitive and social skills necessitate transformations in business, education, and the broader world of work (Handy, 1991). These two threads remain crucial and highly relevant in contemporary discussions on leadership, which is itself a focal notion within organizational studies. Consequently, these two aspects are fundamental to both the theoretical and research components of this book.

Furthermore, in response to uncertainty, Handy (1991) discusses the need for new organizational structures, novel approaches to work, innovative educational models, and revised understandings of societal nature (Handy, 1991). This calls for a new type of leader capable of consciously guiding and facilitating progress towards higher organizational maturity within their operational ecosystems. Johansen (2020) adds that the future will become increasingly complex over the next decade. A common contemporary dilemma is that individuals are constrained by rigid categorical thinking, which 'freezes' organizations into predefined, often inaccurate, and

outdated conceptual boxes. This, in turn, hinders individuals and organizations from comprehending the broader picture. Johansen (2020) proposes 'full spectrum thinking', defined as the ability to discern patterns and clarity beyond conventional categories while resisting false certainty and simplistic binary choices. He also contextualizes core concepts of full-spectrum thinking within technological development, emphasizing the role of digital media, including big-data analytics, visualization, blockchain, and machine learning in facilitating and enhancing it (Johansen, 2020). To some extent, these ideas share assumptions with Gundling, Hogan, and Cvitkovich's concept of global leadership (2011), particularly concerning confronting the unknown and seeking third-way solutions.

In the scenarios presented by Gonzales, individual survival depends more on adaptive leadership skills. This approach emerged as a response to the limitations of expertise-based approaches, which are not always effective in navigating unpredictable environments. Consequently, individual survival in the era of digital transformation does not solely rely on digital competences. The primacy of one's mindset over broadly defined skills as the 'last frontier of leadership' is also underscored by Owen (2022). Similarly, Craggs (2022) identifies a proper mindset, which he terms the 'change mindset', as crucial for addressing change and navigating the uncertainty of current turbulent times. He additionally emphasizes the importance of courage and empathy as key drivers in unlocking the change mindset, leading him to define concepts like courageous leadership and empathetic leadership, both rooted in features constituting the broader notion of transformational leadership (Craggs, 2022).

Accordingly, in light of these examples, the research on leadership at the individual level presented later in this book (see Chapter 3) draws heavily from the emotional intelligence (EI) in leadership approach described in Chapter 1. It is also noteworthy that EI remains central to current scientific discussions on leadership (Harvard Business Review, 2017). However, in the research on companies, the technological dimension, manifested by the digital maturity of companies aspiring to be innovative leaders in local and regional markets or change agents at the grassroots level, is primarily considered. Nevertheless, social aspects such as human capital and cooperation are also integrated into the research model, allowing for a broader exploration of organizational maturity. It is challenging to draw a distinct line between individual and organizational leadership, as they are inherently intertwined. Individual leadership might be associated with an individual's organizational skills and their ability to communicate effectively and guide teams towards goals, while organizational leadership is linked to innovation and achieving competitive advantage in the market. Individuals, with their visions and objectives, do not operate in isolation but within specific ecosystems or organizational structures such as projects – often defined as temporary

organizations (Packendorff, 1995) – companies, municipal boards, NGOs, and political parties. It is these two facets, individual and organizational dimensions, that are crucial in the discussion on the nature of leadership. Consequently, the research presented in this book examines both sides of this dynamic.

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