



Article

How Wise Companies Drive Digital Transformation

Giovanni Schiuma *, Eva Schettini and Francesco Santarsiero

Department of Computer Science and Economics, University of Basilicata, 85100 Potenza, Italy; eva.schettini@unibas.it (E.S.); francesco.santarsiero@unibas.it (F.S.)

* Correspondence: giovanni.schiuma@unibas.it

Abstract: Enterprises aimed at acquiring a sustainable competitive advantage in the Digital Era are challenged to develop a Transformative Digital Leadership marked by a set of abilities. The paper introduces the Digital Transformative Leadership Compass as an innovative framework to assess wise leaders' characteristics driving organisational digital transformation in today's complex business landscape. It identifies the critical abilities, attitudes, and behaviours distinguishing the profile of a transformative digital leader leading an organisation to continuously innovate and digitally evolve in the same way as the business landscape. This paper contributes to theory building by proposing an interpretative framework of critical abilities distinguishing a transformative digital leader of a transformative digital company. Furthermore, the paper provides practitioners with valuable insights and theoretical evidence on leadership practices in the digital era.

Keywords: leadership; wise leader; transformative enterprises; digital transformation; soft skills; abilities



Citation: Schiuma, G.; Schettini, E.; Santarsiero, F. How Wise Companies Drive Digital Transformation. *J. Open Innov. Technol. Mark. Complex.* **2021**, *7*, 122. <https://doi.org/10.3390/joitmc7020122>

Received: 5 April 2021
Accepted: 25 April 2021
Published: 28 April 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Today, companies live in a complex business landscape that requires them to be more resilient, imaginative, intuitive, and flexible. Organisations are called to face the increasing complexity, turbulence, unpredictability, and pace of change of the competitive environment [1–3]. Therefore, the key to the survival of organisations competing in the Digital Era is evolving and adapting businesses and routines to the evolution of the business landscape, identifying challenges, and transforming them into opportunities for development and growth. In this context, according to Nonaka and Takeuchi [4], tacit and explicit knowledge that was considered the distinguishing features of the knowledge-creating company are no longer enough. Companies and managers require practical knowledge and wisdom to make the right decisions under uncertainty. Therefore, the “*experimental knowledge that enables people to make ethically sound judgements*” [5] is revealed as a critical attitude for organisations aiming at staying competitive and protagonists in evolutionary contexts. It allows fostering a continuous innovation paradigm and enabling continuous learning and improvement dynamics.

However, nowadays, in the Digital Era, technology's progress enables the configuration of new products and services that might better increase companies' productiveness and customers' needs satisfaction. Moreover, digital innovation contributes to the generation of a high amount of data, information, and knowledge, that if codified and exploited might produce valuable insights for companies, addressing decisions and aligning the produced outputs to the market demand.

Thus, new technology and digital innovation become a relevant and essential development driver for organisations' competitiveness. In this vein, the concept of Digital Darwinism arose [6,7]. It is defined as a natural selection that excludes organisations that fail to embracing digital and are unable to keep up with society and technologies. Digital Darwinism is a relevant approach but sparked a vigorous debate between Hodgson and Witt [8]. Hodgson [9] explains the evolution of any complex system, and he is closer to Digital Darwinism. In contrast, according to Witt [10,11], the evolution process is enacted by individuals, groups, and organisations and is continually modified through actions.

Therefore, organisations are continually challenged to change and reconfigure internal processes and review products and services provided, implementing even new technologies and digital solutions.

However, the fast development of digital technologies and solutions raises efficiency standards, increases market dynamics speed, and decreases product lifecycle [2,3]. Thus, innovation rapidly and easily becomes common and replaced by new emergent digital innovative solutions. It follows that for a company, continuous investments in implementing emerging digital solutions are not always profitable. It becomes more essential to encourage a change of mindset and develop an organisational digital innovation capacity to understand and analyse the potential impact of applying new technologies in the company and aligning the entire organisation with this new strategic vision. Indeed, digital innovation is not only about technology innovation. It is more about the innovation of knowledge and cultural attitudes [12]. In this vein, organisations are called to embrace continuous Digital Transformation journeys rather than finite change management processes.

Digital Transformation is different from the change management concept: it involves adopting new organisational approaches and new or revised business models for a new perceived vision of the future [13].

Nurturing an organisational culture and a set of abilities fostering continuous digital transformation will become essential for competitiveness in the Digital Era. However, this topic is relevant; the path is not easy to manage and exploit [14]. In this regard, organisations require new kind of leaders, who are, according to Nonaka and Takeuchi [4], wise and able to make the right decisions in times of uncertainty and continuous changes but who are moreover also digital-oriented and possess a set of abilities for leading an organisation capable of continuously digitally transforming.

Defining the set of abilities distinguishing leaders in the Digital Era is raising interest among academics and practitioners [15]. Continuous debates are taking place to define limits within which traditional abilities are no longer suitable for transformative digital organisations or how they should be re-aligned to the current landscape. In this vein, the paper draws on a theoretical review in transformative and wise leadership and digital transformation to investigate the leaders' critical abilities required to face the digital landscape's challenges and foster enterprises' sustainable growth. Furthermore, the paper proposes and discusses the Abilities Leadership Compass, which is a strategic model for future leaders. It identifies the critical abilities, attitudes, and behaviours distinguishing the profile of a transformative digital leader, leading an organisation to continuously innovate and digitally evolve in the same way as the business landscape.

The paper is structured as follows. Section 2 illustrates the transformation process linked to technology and digital innovation, highlighting Digital Transformation leadership's critical role. The main features of two leadership styles, namely transformative and wise, are considered and described. Section 3 presents a strategic model for the future leaders who have to navigate digital transformation: The Abilities Leadership Compass. The section discusses the model and its six specific abilities. Section 4 discusses the original contributions of the study and presents limitations and possible future research.

2. Leadership Abilities to Drive Digital Transformation

There are many reasons why an organisation should embrace Digital Transformation, such as the "need to respond to a newly emerging competition or changing customer preferences, the need to play catch-up as they see their market share dwindling, or to seek proactively create novel value propositions for new customer profiles." [16]. Digital Transformation is today's business strong need [1,3,17].

Moreover, Digital Transformation is crucial to embrace because the most relevant socio-economic and labour-market arising impacts are innovating the business models through the transformation of work, processes, services, products, and the paradigm of the whole economy [18]. At the centre of this impact, digital technology (e.g., Big Data, Analytics, Artificial Intelligence, etc.) contributes to the improvement of workers' abilities

and companies' effectiveness. The integration of emergent technology in the company's routines alongside the employees should contribute to increased knowledge creation and management dynamics. This allows workers to dedicate more time to added value processes rather than consuming and alienating ones. It follows that technology is even more resulting as a driving force of today's competitive landscape. Therefore, Digital Transformation, Business Model Innovation, and the processes to implement technology in the right way to produce innovation are current almost mandatory topics for enterprises' competitiveness and survival. Thus, today's fast-changing and complex business landscape requires any enterprise to be transformative [16].

The organisations that accept and nurture transformation are ready to embrace a new set of cultural principles. Transformation is not only about executing a well-defined shift in the way things work. It is not only about implementing finite proposals, but it is much more. Transformation is a process to reinvent the enterprises and discover a new or revised business model based on a new vision for the future [13]. It is unpredictable, iterative, and experimental because it can also revise the performance management approach. Today, in the Digital Age, technology and digital innovation are fundamental factors for digital transformation. It can be viewed as a holistic approach of shifting organisations towards implementing new methods for raising organisational performances by boosting organisational capabilities and competitiveness. This means that digital transformation is not about technology but people [19]. The technological revolution impacts all of an organisation's levels, including organisational, managerial, product development, and process engineering, including management decisions and new skills development. It follows that enterprises aiming to keep the pace of change and evolve must necessarily encourage organisational and individual behaviours necessary to acquire new skills. In this regard, the transformation process is much more likely driving from the top, not because of a prevailing autocratic or hierarchical style of leadership, but because durable changes are encouraged by leaders and top managers [20]. The role of leadership in Digital Transformation is critical to carry and support an organisation through a Digital Transformation journey.

In the Digital Era, enterprises require a leadership style allowing making decisions in an-complex context and fostering Digital Transformation and continuous digital innovation, promoting and spreading a transformative digital culture within the entire organisation. Several studies agree that Digital Transformations' factors impact work organisation, work roles and capabilities, and labour management [21,22].

Defining skills distinguishing leaders in the Digital Era has become a matter of interest in the academic literature. Extensive leadership research has been undertaken, and different studies analyse the relevant skills leaders should have to be effective, and there is still a lot of confusion [23]. Digital leadership is an actual burning topic [24]. El Sawy et al. [25] define digital leadership as the capacity of doing the right things for the strategic success of digitalisation for the enterprise and its business ecosystem. According to research, leadership abilities are essential to managing all of the mechanisms triggered by the turbulent business environment and because of it, leaders can make significant changes to the strategy-making process and organisational culture [26]. A leader is tasked to lead in a state of constant change into an unknown digitalised future considering that also individuals and businesses are constantly changing [27].

Westerman et al. [28] assert that one of the most critical leadership capabilities is developing a transformative digital vision and inspiring people by engagement. The authors identify five vital abilities that help a leader to impact the organisation's success positively:

1. Devolved decision making: the capacity to share power and teach people to make the rights decisions;
2. Collaborative achievement: the ability to create an environment where people work as a team;
3. Agility: the capacity of adaptation to change;
4. Purpose and direction: the ability to communicate the right direction;

5. Authenticity: the capacity to build reputation and trust.

Moreover, leaders' role has been widely debated in the literature over the years, and the concept of leadership has evolved. Nowadays, several leadership styles have been identified: i.e., relational and situational. All managers need to adapt their leadership style. From the relational approach perspective, leadership has been viewed as a two-way influencing relationship between a leader and a follower aimed primarily by attaining mutual goals [29]. According to situational leadership, situational factors play in determining individual leaders' effectiveness [30]. According to the considered perspectives, the figure of a leader can be conceived in different ways. This study set its sights on transformational and wise leadership approaches and reviewed them to identify the critical abilities distinguishing a transformative digital leader. These two approaches are considered because there is a continuous debate on universal and contingency theories. Specialists ask to what extent leaders' skills to lead transformational companies differ from those required in traditional organisations [31]. This has indicated the need for a new approach to leadership in a world that seemingly lacks a moral compass [32,33].

A wise leadership approach helps a leader find wisdom, and a transformative leadership approach can support leaders managing transformative digital enterprises.

According to the Transformational Leadership Theory, transformational leaders use intellectual stimulation and challenge employees to accept innovative solutions to problems and challenge the status quo [34,35].

The Transformative Leadership Theory has been defined as a "values-based critical theory, focused both on beliefs and actions that challenge inequity, and that promote more equity and inclusive participation" [36]. Transformative leadership also incorporates transformational factors [37] to consider a transformative leader who embraces knowledge generation and digital transformation to shape a sustainable value-oriented organisation.

3. Shaping a Wise Company through Wise Leadership

Regarding the recent concept of the wise leader, this study considers [4,5], according to the authors, that the leader figure requires an alignment to today's volatile business environments and unstable social context. In particular, many leaders find it difficult to reinvent their corporations rapidly enough to cope with new technologies, economic changes, and other crises. Organisations, to survive in this unstable context, require leaders who pursue the common good by striving to create social and economic value and pair micromanagement with big-picture aspirations about the future. The authors think that leaders must acquire practical wisdom, or what Aristotle called *phronesis*. Wise leaders must act as thinking agents. They make judgments knowing some factors as reality is contextual; decisions are made known; everything is in a continuous flux of change; actions are taken knowing that it is essential to do so in a timely fashion; decisions must be made knowing that it is necessary to consider at the same time micromanagement and the big picture. Wise leaders must see what is good and right for society and the company and shape sustainability. Nonaka and Takeuchi [4,5] stressed these factors claiming that wise leaders demonstrate six abilities.

The first ability is the so-called 'Judging goodness'. In this regard, wise leaders *make decisions based on what is good for the organisation and society.* Leaders have to act critically and responsibly, always having a big picture of value creation on time. They do what is good not only for the organisation but for the society at large and humankind because the goal of an organisation is to contribute to a better community. Leaders can develop the ability to make judgments and decision about goodness, cultivating four practices: (i) Choosing experiences, particularly those gained through facing adversity and failure; (ii) Writing down principles related to personal values and ethics and sharing them (the principles are based on moral and ethical guidelines); (iii) Searching relentlessly to pursue excellence; and (iv) Becoming well versed in the liberal arts.

The second ability is called 'grasping the essence'. This ability is about revealing what is really behind products and organisational behaviour. Wise leaders do not simply focus

on what they do but on the essence of what they do. Grasping the essence is about revealing what is really behind products and organisational behaviour. There are three leading practices linked to this ability: (i) exercising critical thinking, understanding the idea behind the object of observation and the specifications; (ii) seeing the “trees” and the “forest” at the same time. The ability to observe and identify both the details and the big picture is crucial for leaders who want to grasp reality and be fully aware of a problem or situation; and (iii) constructing and testing hypotheses, following a scientific method.

The third ability is defined as ‘creating shared context’. In this vein, creating a space, place, or field in which relationships are forged and human interactions create a practice knowledge is fundamental for each organisation. The shared context can be physical (face-to-face) or virtual, small or large, internal or external. It is a learning context that can be formal or informal to create knowledge and embedding knowledge. According to Nonaka and Takeuchi [5] the following practices are essential to developing a context for interactions: (i) Keep the doors open, encouraging openness; (ii) Capitalise on timing; (iii) Facilitate collisions sparking creativity and innovation; (iv) Be brutally honest; (v) Establish a shared sense of purpose; (vi) Demonstrate commitment.

The fourth ability is ‘communicate the essence’. In this perspective, leaders should practice communicating through the universal language that everyone can understand. For this reason, wise leaders can translate and express complex situations and problems through metaphors, stories, and another figurative language that help to communicate to people extensively and effectively. Metaphors help to quickly grasp reality and the conveyed messages because they are grounded on people’s common everyday life experiences. Stories can create an empathetic cognitive context facilitating the understanding of messages by leveraging someone else’s experiences. The use of figurative and inspirational language enables people from different cultural backgrounds to grasp messages more effectively. The communication of the essence also requires mastering rhetoric to motivate people by envisioning possible futures and creating aspirations or visions. In this context, rhetoric is understood as an effective way to communicate and inspire people rather than human communication to aim for purposeful and strategic manipulation. Wise leaders understand how people will perceive the messages and the reactions they will have. For this reason, messages should be built not just from his or her perspective but essentially from the messages’ receivers. Some ways to develop this ability are (i) Reading Novels; (ii) Engaging in open and direct conversation; (iii) Making effective use of historical imagination to create a new concept for the future; and (iv) Learning Rhetoric from memorable speeches.

The fifth ability is ‘exercising political power’. In this regard, wise leaders know how to exercise political power, that is, the ability to bring people together and get them to act. Political power is about mobilising people with different, even conflicting goals/interests to combine their knowledge and efforts towards a single target. It involves the leader’s ability to understand their people’s viewpoints and emotions and spur them to action. It is about embracing and synthesising contradictions because today’s complex and fluid environment is increasingly distinguished by raising weak problems and contradictions. In such a context, rather than seeking an optimal balance between inequalities, a wise leader should engage in dialectical thinking. It is about thinking in terms of “both/and” rather than “and”—so it is about pursuing both change and stability, disruption and continuity at the same time. In the age of uncertainty, dialectical thinking matters more and more. It is an essential feature of a wise leader’s ability to hold two opposed ideas in mind at the same time and still retain the capacity to function and make decisions without losing sight of the greater good. A further practice that helps wise leaders exercise political power is encouraging positive disobedience or disobedience with a consciousness. Encouraging disobedience rather than compliance push creativity and inspire excellence. Each person is expected to act according to what (s)he thinks is right and not take for granted what a boss says, with the scope of making the overall organisation critical regarding the problems and solutions to adopt.

The sixth ability is defined as 'fostering practical wisdom in others'. Wise leaders should distribute practical wisdom as much as possible through the organisation to train employees in its use at all levels. This way will enable organisations to respond flexibly and creatively to any situation. The leader should be an example for others because people can often learn about practical wisdom by observing an exemplar's behaviour. A formal apprenticeship system can be used to foster practical wisdom, which allows mentors to share experiences, contexts, and time.

Analysing Nonaka and Takeuchi's study, leaders need to foster practical wisdom to encourage the wise company's development as entities that cultivate wisdom in their people to achieve sustainability and longevity. Wise companies have some peculiar characteristics that enable them to survive, as:

- Create a future that rivals can not;
- Offer superior value to customers and stakeholders;
- Operate in harmony with society;
- Have a moral purpose;
- Pursue common good as a way of life.

Why does this study talk about wise companies? Today, to be a knowledge-creating company is no longer sufficient. The reason is that many leaders use knowledge improperly and do not cultivate the right things. They should be idealistic-pragmatic leaders to promote wisdom as a new form of knowledge. This higher-order tacit knowledge enables companies to cope with the fast-changing world, grasping the essence [4]. Wise companies know that wise people are vital resources because they create and practice knowledge and innovate.

According to the literature, in the Digital Age, companies that aimed at staying competitive and gaining a sustainable advantage cannot avoid embracing Digital Transformation journeys and developing an organisational culture allowing for evolving and continuously adapting to the business landscape and market demand. However, this topic is relevant; the path is not easy to manage and exploit [14]. In this regard, organisations require *transformative digital leaders*, who are, according to Nonaka and Takeuchi [4], wise and able to make the right decisions in times of uncertainty and continuous changes, but who are moreover also transformative and digital-oriented and possess a set of abilities for leading an organisation that is capable of continuously digitally transforming.

In the next section, the distinguishing abilities are discussed and proposed within an *Abilities Leadership Compass*.

4. The Digital Transformative Leadership Compass

The Abilities Leadership Compass (Figure 1) is a strategic model for the leaders of the future. It identifies the critical abilities, attitudes, and behaviours distinguishing the profile of a transformative digital leader leading an organisation to continuously innovate and digitally evolve in the same way as the business landscape. The model has been developed by drawing from the literature on leadership and Digital Transformation. In particular, the model originates from the combination of theoretical insights on transformative and wise leadership theories. The model identifies six abilities linked to Nonaka and Takeuchi's model's capabilities, considering the idealistic and pragmatic wise leader.

Each ability is also drawn up by considering the leadership perspectives of the transformative leadership studies, particularly the Caldwell contribution [37]. Each capability is also proposed as a personal trait of the transformative digital leader and an inspirational question that could lead the leader's compass. Therefore, the Abilities Leadership Compass offered six abilities that a leader could develop to be wise and transformative, connecting idealistic and pragmatics elements. This model is suggested to meet the need for a new approach to leadership in a world that seemingly lacks a moral compass [32,33].

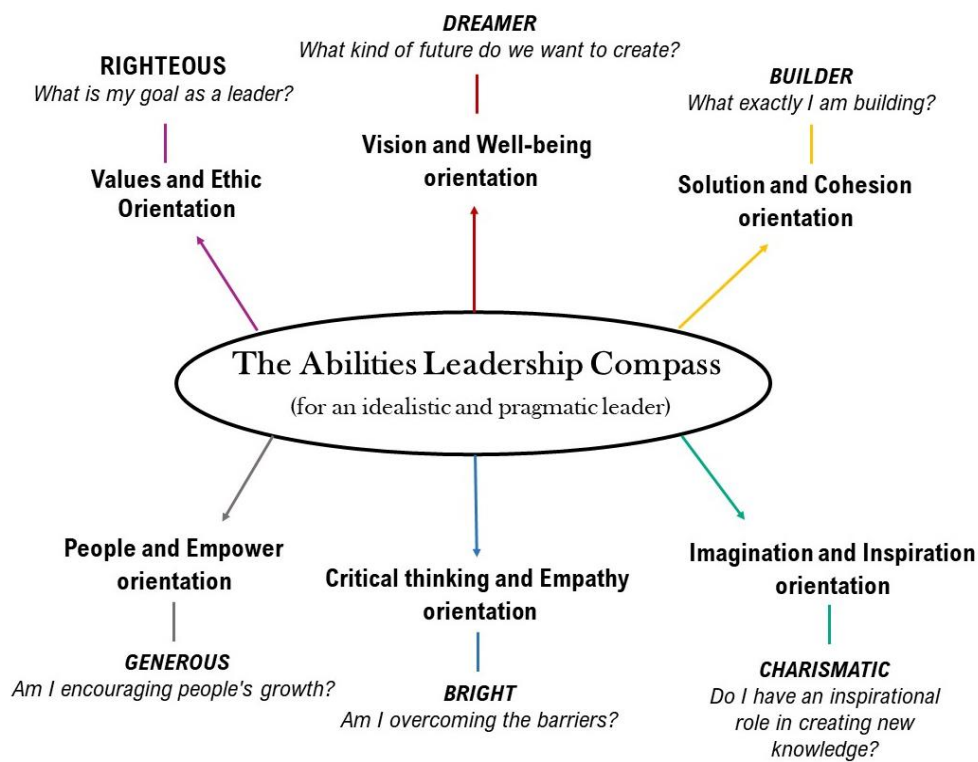


Figure 1. The Digital Transformative Leadership Compass. Source: own illustration of the authors.

5. Values and Ethic Orientation

Wise leadership is about shaping a better future, acknowledging the past and managing the present towards sustainability. For this reason, it is essential to nurture idealism and hopefulness. Being idealistic opens the possibility to create new and different futures. A transformative wise leader’s actions should have a higher purpose: the only goal of a leader is to make money and make a difference. The key question for him is: *What is my goal as a leader?* The ultimate goal of an organisation is to contribute to a better society. This equals developing a new idea or an alternative view of capitalism, which in its traditional shareholders’ value orientation prevents business organisations from fully meeting the challenges society is dealing with. The creation of profits is essential for the survival of an organisation, but it does not mean that profitability is everything and that all actions should aim to pursue profitability [4].

A transformative digital leader should let himself be guided by healthy values and a strong sense of ethics. Following instinct means that the opinions and the choices are guided by what people feel, to distinguish what is good from what is not. Leaders must adhere to the values and principles proclaimed to be considered as virtuous and credible. It is essential to elevate principles and values that benefit society, sacrificing short-term goals favouring long-term purposes [38]. A transformative digital leader works on his empowerment and is *Righteous*, tending to motivate one’s self and others to have a sense of spiritual well-being through calling and membership, to create value congruence across the strategic, empowered team, and individual levels to, ultimately, foster higher levels of employee positive human health, psychological and spiritual well-being, organisational commitment, productivity and, ultimately organisational performance [39]. This is because spiritual work is more productive and may also be a source of sustainable growth and competitive advantage [40].

6. Vision and Well-Being Orientation

Wise leaders use their intuition to grasp the essence. Grasping the essence is about revealing what is really behind products and organisational behaviour. The critical value

driver behind grasping the essence is defining a vision (What is our dream?) and quickly grasping situations, tending to a common purpose. The wise leader promotes the enterprise's mission (Why do we exist?) and takes care of people. A transformative digital leader believes that continuous innovation is essential for survival and thinks that everyone in the organisation must be committed to putting into practice the principles of continuous transformation. He asks himself: *What kind of future do we want to create?* The leader knows that to survive, the organisation has to create a new future. The future cannot be simply an extension of the past; it must be a leap of faith. For this reason, an enterprise has to make jumps moved by its ideals and dreams and cannot be content with analysing empirical data and deductive thinking.

The critical value driver behind grasping the essence understands features affecting people's happiness about what the organisation is doing. A digital transformative company's deep mission should be defined on the principles of making people happier because if you make people happy, everything else will follow up, as demonstrated by studies [41]. A transformative digital leader knows that making people happy boosts people's performance at work, which raises the possibility of creating self-sustaining spirals between human productivity and human well-being, depending on a greater purpose of improving life. The key to creating a common goal and making people happy is to work on yourself, nurturing emotional intelligence, intuition, and creativity because digital transformation is about talent and soft skills [19]. Creativity and leadership are intimately connected [42], and when leaders connect the rational with the intuitive dimension, they capture the essence.

A transformative digital leader works on his creativity and instinct; he is idealistic and a *Dreamer*, a captain who leads his ship towards destinations, overcoming the difficulties of the "innovation sea" and achieving greatness by adhering to moral principles and values that benefit society in the pursuit of excellence.

7. Solution and Cohesion Orientation

A wise transformational leader should be idealistic to create a new future. However, idealism is not enough: it is also necessary to be pragmatic. Pragmatism requires looking reality in the eye, grasping the essence of the situation, and envisioning how it relates and can be connected to the larger context. Pragmatism means thinking but not for the sake of thinking, but to drive actions and to do. In an increasingly unstable business environment, leaders are forced to make decisions quickly and without complete information [31,43]. They must learn to use their intuition and concretely act towards a direction: decisiveness and problem-solving abilities keep being highly relevant to leaders who navigate the digital landscape and may become even more prominent in the future [15]. Information systems can provide enormous amounts of real-time data, so a wise transformational leader should process a high volume of fast-paced incoming and outgoing data, summarise them, and make sense of the relevant information. Alternatively, urgency would put leaders in situations to decide without having all information or thinking and analysing the problem, providing habitual answers instead of creating innovative solutions and new ideas. To learn to manage these situations, leaders have to strike the right balance between rationality and instinct. A leader should ask himself: *What exactly I am building?*

Another critical aspect of pragmatism is that wise transformational leaders should feed networks, develop social interactions, and promote real or virtual spaces to encourage connections and comparison. Studies explain that creating room for emotional and thinking sharing alongside affirming the diverse emotional and thinking landscape fuel relationships, team-building ability, and people's innovative spirit [44]. Today, the hyper-connected environment, characterised by social media and other digital platforms, provides new networking opportunities and the possibility to establish connections with colleagues and stakeholders through more immediate communication. Indeed, sharing common space allows people to recognise those relationships that lead to tangible benefits and create and maintain social relationships with various stakeholders.

A transformative digital leader who is solution and cohesion oriented can be considered a *Builder*, a pragmatic guide able to achieve the objectives, make decisions to resolve problems, and create comparison and growth spaces.

8. Imagination and Inspiration Orientation

Transformative leaders focused on wisdom should communicate mission, vision, and values in which they believe. They should inspire people via a storytelling tool using metaphors, stories, and rhetoric. These techniques help the leader explain his ideas to his constituents, share his knowledge with them, build a shared vision, and settle conflicts peacefully. Metaphors and stories have the potential to overcome barriers people build to protect themselves against the external world and new ideas. A story can be defined differently, give sense to things and events, and represent norms, experiences, and explanations of reality. Towards storytelling, a leader can inspire people who become followers [37] spontaneously. A wise transformational leader can influence the quality of organisational learning through storytelling.

For this reason, imagination is one of the central meanings of being a mentor for nursing leadership. A leader who inspires, creates living memories of organisations and keeps them alive. They form the corporate culture, influence, and co-create the basic principles of individuals and groups. Usually, organisational elements such as teams, communities, and departments create their own stories that describe management style, relationships among employees, values, problems, usual activities, and lessons learned. In a transformative company, the ability to narrate and inspire nurtures the birth of a new tacit knowledge that will constitute the enterprise's future know-how. Tacit knowledge is difficult to codify; more complex tacit knowledge cannot be codified at all. Fables, parables, legends, and folk tales can also be used, with protagonists as animals representing people or myths that describe heroic acts of good and famous heroes. Therefore, a wise transformational leader could use stories and storytelling to create scenarios and visions, codify tacit knowledge, explain ideas, smooth the implementation of change, and overcome mental barriers people build against new knowledge [45]. Indeed, in the digital era, a wise transformational leader must use a new way of communication and interaction, inspiring social media and internet tools [15]. Carte et al. [46] confirm: "while leadership in the more traditional face-to-face context may emerge using a variety of mechanisms, in the virtual context, it likely relies largely on the communication effectiveness of the leader." A leader who cultivates imagination and inspiration asks himself: *Do I have an inspirational role in creating new knowledge?* He is a *Charismatic* digital transformative leader who creates a leader-follower relationship through a strong personal bond with followers. He solidifies personal connection, forges an identity between members and the organisation, and inspires high personal commitment levels.

9. Critical Thinking and Empathy Orientation

Wise leaders exercise political power to foster cooperation between people and encourage them to reach goals. Different abilities can express the capacity to exercise political power, and most importantly, it is about embracing and synthesising contradictions towards dialectical thinking, as explained before. Analytic thinking ability can be closely linked to critical thinking, which is defined as "the intellectually disciplined process of actively and skillfully conceptualising, applying, analysing, synthesising, and evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" [47].

A wise transformational leader is navigating complex environments. He should nurture critical thinking for making decisions that are best suited to a situation without losing sight of the goodness to be achieved. This ability enables leaders to deal effectively with social, scientific, and practical problems that characterise the complex society in which we live. It is a learned skill that must be developed, practised, and continually integrated, and it is a crucial ability to be open-minded in the pursuit of knowledge.

Typically, four barriers often impede the integration of critical thinking in the learning process and education: lack of training, lack of information, preconceptions, and time constraints [48]. A leader who tries to overcome the barriers and nurture critical thinking promotes problem-based learning environments to increase people's thinking skills and knowledge acquisition. He creates a culture of inquiry where people can discuss their thinking processes and practice logical constructs. People will become more willing to reconsider and revise their thinking. The focus will be not as receivers of information but as users of information. Critical thinking requires training, practice, and patience because people have to ask themselves: Should it be viewed differently? What is my knowledge based upon? Finally, the reward is that people can critically think for themselves and solve real-world problems.

A leader who wants to integrate critical thinking in the learning process must also train his abilities to understand people's empathy and listening. Indeed, empathy enables the leader to know if the people he is trying to reach are reached. It allows him to predict the effect his decisions and actions will have on core audiences and strategise accordingly. Without empathy, a leader cannot build a team or nurture a new generation of leaders. He will not inspire followers or elicit loyalty.

Salovey and Mayer [49] define empathy as "the ability to comprehend another's feelings and to re-experience them oneself", claiming that it may be a central characteristic of emotionally intelligent behaviour. It is commonly described as the ability to put yourself in another person's shoes. Empathy is more than an intellectual exercise. It requires personal involvement and imagination. An individual who is fortunate enough to encounter an empathic listener feels reassured, recognised, and accepted [50]. This soft skill is considered an effective leadership behaviour in an organisational setting [51–53]. Developing empathy also means nurturing listening ability and involving other people in the organisation process to create knowledge. A transformational digital leader asks himself: *Am I overcoming the barriers?* He is *Bright* because he shows how forward-thinking he is in the complex digital landscape by using reasoning, analytical skills, and closeness.

10. People and Empower Orientation

According to Nonaka and Takeuchi, wise leaders should foster practical wisdom in others and distribute it as much as possible. We think that a leader who believes in people provides others with opportunities to experiment and constantly improve. He diffuses energy and strength in the organisation, inspiring people to reach the collective purpose. A transformative wise leader desires to create new meaning and insights by selfless commitment, continual learning, empowering others, and personal example. He is people-oriented: his behaviours regard mutual trust in interpersonal relationships, communication, and respect for the opinions of and caring about the emotions of subordinates. Leaders with these behaviours show more interest in followers' needs and desires and act in this direction [54]. Navigating a digital landscape requires a combination of both people-oriented and task-oriented leadership behaviours because organisations are complex systems in a complex contest. A leader is responsible for establishing a friendly atmosphere in a team to encourage all members to work together without feeling intimidated, frightened, or insecure [55].

Moreover, a future leader should take care of people and grow towards personal and professional learning programs and trust. He should be not afraid to assign them a challenging task that presumes responsibility and a sense of risk. It is essential to promote empowerment in the organisation, which aims to support the acquisition of power to increase individuals and groups' ability to control their own lives [56] actively. Organisational empowerment includes all processes and organisational structures that increase member participation and improve its effectiveness in achieving its goals. An organisation that allows its members to enhance control over their existence is called an "empowering" organisation: it makes it possible to realise the potential of the individual who feels an internal desire for change. A leader that enhances empowerment also encourages a social

process through which people, organisations, and communities acquire competence over their own lives to change their social and political environment to improve equity and the quality of life [57].

A transformative wise leader, to nurture an empowering organisation, shows trust in employees by encouraging them to activate talent, propose ideas, and take initiatives and solve problems. The reason is that perceived trust often stimulates people to offer performances that exceed their expectations. The critical question of a leader is people and empower oriented: *Am I encouraging people's growth?* He is *Generous*, tending to encourage people to nurture leadership skills and support talented people's professional development, even if they are different from him.

11. Conclusions

The paper addresses the emergent need of enterprises for developing behaviour and mindset prone to Digital Transformation. Combining insights and evidence gathered from a literature review on leadership and Digital Transformation led to the emergence of the need to nurture a transformative digital leadership, allowing enterprises to stay competitive and change and adapt to the scenario evolution. Furthermore, the paper proposes a strategic model, the Abilities Leadership Compass, that stands out for six critical abilities that entrepreneurs, managers, and more general leaders should develop to lead the company towards an effective and continuous Digital Transformation journey transformative digital company.

The proposed model draws on Nonaka and Takeuchi's approach [4,5], considering the relevance of companies competing in the Digital Era to develop wisdom and practical knowledge to make decisions in hyper-complex landscapes. However, the Abilities Leadership Compass is conceived looking at the above-mentioned approach from a digital transformative perspective. From the review, it emerged that enterprises in the Digital Era require transformative digital leaders more than wise leaders [37]. Therefore, wisdom is a critical attitude that leaders must have. Leaders should also nurture transformative and digital-oriented abilities and mindset to embrace Digital Transformation paradigms and enable transformative digital behaviours effectively. Thus, the Abilities Leadership Compass is a holistic model that offers new cues of reflection, new research perspectives, and orientation thoughts.

This model offers important managerial implications. It can be considered a practical guide to understanding the fundamental abilities to nurture transformative digital leadership. Our study suggests that the context is rapidly changing, and the rapid development of new capacities linked to innovation is critical to surviving under these new circumstances. The HR Departments of organisations that navigate digital transformation could use the Abilities Model to measure specific behaviours that leaders should demonstrate.

It is proposed as a helpful model for scholars and practitioners to deepen studies on leadership practices, identify the critical abilities distinguishing a leader in the Digital Era, and gather insights and suggestions about the key questions and essential steps to follow to develop the required capabilities.

This study's limitations indicate some directions for future research. First, we proposed a conceptual paper that feeds on a literature review devoid of empirical evidence. Our research proposed a new theoretical model, the Abilities Leadership Compass, that could provide fresh ideas and encourage new spaces of broadening linked to leadership abilities to nurture transformative enterprises in a complex digital context. Furthermore, future studies could deepen this area towards the support of new survey perspectives, quantitative research, and targeted analysis. The Abilities Leadership Model could evolve and become a reference tool, supported by assessment instruments, to create a competencies model for future leaders measuring critical transformative abilities.

Author Contributions: Conceptualization, G.S. and E.S.; Methodology, F.S.; Software, F.S.; Validation, G.S., E.S. and F.S.; Formal Analysis, G.S.; Investigation, F.S.; Resources, E.S.; Data Curation, F.S.; Writing-Original Draft Preparation, G.S.; Writing-Review & Editing, G.S.; Visualization, E.S.;

Supervision, E.S.; Project Administration, F.S.; Funding Acquisition, F.S. All authors have read and agreed to the published version of the manuscript.

Funding: This paper was presented as a keynote speech of SOI 2021, and the publishing fee of this paper was funded by SOI 2021-1.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Schiama, G. Managing knowledge for business performance improvement. *J. Knowl. Manag.* **2012**, *16*, 515–522. [\[CrossRef\]](#)
- Santarsiero, F.; Carlucci, D.; Schiama, G. Understanding the Phenomenon of Innovation Labs. In Proceedings of the Annual Gsom Emerging Markets Conference, St. Petersburg, Russia, 3–5 October 2019; pp. 177–180.
- Santarsiero, F.; Schiama, G.; Carlucci, D. Entrepreneurability: Innovation Labs as Engines of Innovation Capacity Development. In *Innovative Entrepreneurship in Action*; Springer: Cham, Switzerland, 2020; pp. 115–127.
- Nonaka, I.; Takeuchi, H. *The Wise Company: How Companies Create Continuous Innovation*; Oxford University Press: Oxford, UK, 2019.
- Nonaka, I.; Takeuchi, H. The big idea: The wise leader. *Harv. Bus. Rev.* **2011**, *89*, 58–67.
- Goodwin, T. *Digital Darwinism: Survival of The Fittest in the Age of Business Disruption*; Kogan Page Publishers: London, UK, 2018.
- Vollmer, C. Digital Darwinism. *Strategy+ Bus.* **2009**, *54*, 1–15.
- Erkut, B. The Emergence of the ERP Software Market between Product Innovation and Market Shaping. *J. Open Innov. Technol. Mark. Complex.* **2018**, *4*, 23. [\[CrossRef\]](#)
- Hodgson, G.M. Agency, Institutions, and Darwinism in Evolutionary Economic Geography. *Econ. Geogr.* **2009**, *85*, 167–173. [\[CrossRef\]](#)
- Witt, U. On the proper interpretation of ‘evolution’ in economics and its implications for production theory. *J. Econ. Methodol.* **2004**, *11*, 125–146. [\[CrossRef\]](#)
- Witt, U. What is specific about evolutionary economics? *J. Evol. Econ.* **2008**, *18*, 547–575. [\[CrossRef\]](#)
- Tabrizi, B.; Lam, E.; Girard, K.; Irvin, V. Digital transformation is not about technology. *Harv. Bus. Rev.* **2019**, *13*, 1–6.
- Ashkenas, R. We still don’t know the difference between change and transformation. *Harv. Bus. Rev.* **2015**, *21*, 1–3.
- D’Este, P.; Iammarino, S.; Savona, M.; Von Tunzelmann, N. What hampers innovation? Revealed barriers versus deterring barriers. *Res. Policy* **2012**, *41*, 482–488. [\[CrossRef\]](#)
- Cortellazzo, L.; Bruni, E.; Zampieri, R. The role of leadership in a digitalized world: A review. *Front. Psychol.* **2019**, *10*, 1938. [\[CrossRef\]](#) [\[PubMed\]](#)
- Frankenberger, K.; Mayer, H.; Reiter, A.; Schmidt, M. *The Digital Transformer’s Dilemma: How to Energise Your Core Business While Building Disruptive Products and Services*; John Wiley & Sons: Hoboken, NJ, USA, 2020.
- Bharadwaj, A.; El Sawy, O.A.; Pavlou, P.A.; Venkatraman, N. Digital business strategy: Toward a next generation of insights. *MIS Q.* **2013**, *37*, 471–482. [\[CrossRef\]](#)
- Muro, M.; Liu, S.; Whifton, J.; Kulkarni, S. Digitalisation and the American Workforce. In *Brookings Institution Metropolitan Policy Program*; Brookings: Washington, DC, USA, 2017.
- Frankiewicz, B.; Chamorro-Premuzic, T. Digital transformation is about talent, not technology. *Harv. Bus. Rev.* **2020**, *6*, 3.
- Sathe, V. *Corporate Entrepreneurship: Top Managers and New Business Creation*; Cambridge University Press: Cambridge, UK, 2007.
- Barley, S.R. Why the Internet Makes Buying a Car Less Loathsome: How Technologies Change Role Relations. *Acad. Manag. Discov.* **2015**, *1*, 5–35. [\[CrossRef\]](#)
- Schwarzmueller, T.; Brosi, P.; Duman, D.; Welpel, I.M. How does the digital transformation affect organisations? Key themes of change in work design and leadership. *Mrev Manag. Rev.* **2018**, *29*, 114–138. [\[CrossRef\]](#)
- Brungardt, C. The Making of Leaders: A Review of the Research in Leadership Development and Education. *J. Leadersh. Stud.* **1996**, *3*, 81–95. [\[CrossRef\]](#)
- Brock, J.K.U.; Von Wangenheim, F. Demystifying AI: What digital transformation leaders can teach you about realistic artificial intelligence. *Calif. Manag. Rev.* **2019**, *61*, 110–134. [\[CrossRef\]](#)
- El Sawy, O.A.; Kræmmergaard, P.; Amsinck, H.; Vinther, A.L. How LEGO Built the Foundations and Enterprise Capabilities for Digital Leadership. *MIS Q. Exec.* **2020**, *15*, 174–201.
- Della Corte, V.; Del Gaudio, G.; Sepe, F. Leadership in the Digital Realm: What Are the Main Challenges? In *Digital Leadership—A New Leadership Style for the 21st Century*; IntechOpen: London, UK, 2019.
- Kotter, J.P. Why transformation efforts fail. *Harv. Bus. Rev.* **2007**, *85*, 96–103.
- Westerman, G.; Bonnet, D.; McAfee, A. The nine elements of digital transformation. *MIT Sloan Manag. Rev.* **2014**, *55*, 1–6.
- Graen, G.B.; Uhl-Bien, M. Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadersh. Q.* **1995**, *6*, 219–247. [\[CrossRef\]](#)
- Mullins, L.J. *Management and Organisational Behaviour*; Financial Times: London, UK, 1999.
- Horner-Long, P.; Schoenberg, R. Does e-business require different leadership characteristics? An empirical investigation. *Eur. Manag. J.* **2002**, *20*, 611–619. [\[CrossRef\]](#)

32. Paine, L.S. *Value Shift: Why Companies Must Merge Social and Financial Imperatives to Achieve Superior Performance*; McGraw-Hill: New York, NY, USA, 2003.
33. Freeman, R.E.; Martin, K.; Parmar, B.; Werhane, P.; Cording, M. Leading through values and ethical principles. In *Inspiring Leaders*; Routledge: London, UK; New York, NY, USA, 2006.
34. Bass, B.M.; Bass Bernard, M. Leadership and Performance beyond Expectations. 1985. Available online: <https://www.semanticscholar.org/paper/LEADERSHIP-AND-PERFORMANCE-BEYOND-EXPECTATIONS-Bass/c1163c08a7312f01048b773d002f68e1d589a38a?p2df> (accessed on 18 March 2021).
35. Berson, Y.; Avolio, B.J. Transformational leadership and the dissemination of organisational goals: A case study of a telecommunication firm. *Leadersh. Q.* **2004**, *15*, 625–646. [CrossRef]
36. Shields, C.M. Transformative leadership. *Oxford Research Encyclopedia of Education*; SAGE: 2020. Available online: <https://doi.org/10.1093/acrefore/9780190264093.013.632> (accessed on 18 March 2021).
37. Caldwell, C.; Dixon, R.D.; Floyd, L.A.; Chaudoin, J.; Post, J.; Cheokas, G. Transformative Leadership: Achieving Unparalleled Excellence. *J. Bus. Ethic.* **2012**, *109*, 175–187. [CrossRef]
38. Lennick, D.; Kiel, F. *Moral Intelligence: Enhancing Business Performance & Leadership Success*; Wharton School Publishing: Upper Saddle River, NJ, USA, 2007; p. 209.
39. Fry, L.; Matherly, L. Spiritual Leadership and Organisational Performance: An Exploratory Study. In Proceedings of the Academy of Management Meeting, Atlanta, GA, USA, 11–16 August 2006.
40. Mitroff, I.I.; Denton, E.A.; Alpaslan, C.M. A spiritual audit of corporate America: Ten years later (spirituality and attachment theory, an interim report). *J. Manag. Spirit. Relig.* **2009**, *6*, 27–41. [CrossRef]
41. Oswald, A.J.; Proto, E.; Sgroi, D. Happiness and productivity. *J. Labor Econ.* **2015**, *33*, 789–822. [CrossRef]
42. Sternberg, R.J.; Kaufman, J.C. *The Nature of Human Creativity*; Cambridge University Press: Cambridge, UK, 2018; p. 306.
43. Pulley, M.L.; Sessa, V.I. E-leadership: Tackling complex challenges. *Ind. Commer. Train.* **2001**, *33*, 225–230. [CrossRef]
44. Sanchez-Burks, J.; Bradley, C.; Greer, L. How Leaders Can Optimise Teams' Emotional Landscapes. *Mit Sloan Manag. Rev.* **2020**, *62*, 1–4.
45. Denning, S. The Leaders Guide to Storytelling. In *Jossey-Bass*, 2nd ed.; Jossey-Bass: San Francisco, CA, USA, 2011; ISBN 978-1-118-00878-2.
46. Carte, T.A.; Chidambaram, L.; Becker, A. Emergent leadership in self-managed virtual teams. *Group Decis. Negot.* **2006**, *15*, 323–343. [CrossRef]
47. Scriven, M.; Paul, R. Defining Critical Thinking. In *The Critical Thinking Community: Foundation for Critical Thinking*. 2007. Available online: <http://www.criticalthinking.org/pages/defining-critical-thinking/766> (accessed on 18 March 2021).
48. Snyder, L.G.; Snyder, M.J. Teaching critical thinking and problem solving skills. *J. Res. Bus. Educ.* **2008**, *50*, 90.
49. Salovey, P.; Mayer, J.D. Emotional intelligence. *Imagin. Cogn. Personal.* **1990**, *9*, 185–211. [CrossRef]
50. Katz, R.L. *Empathy: Its Nature and Uses*; Free Press of Glencoe: London, UK, 1963; p. 8.
51. Cooper, R.K.; Sawaf, A. *Executive EQ: Emotional Intelligence in Leadership and Organisations*; Grosset/Putman: New York, NY, USA, 1997.
52. Goleman, D. *Working with Emotional Intelligence*; Bantam Books: New York, NY, USA, 1998.
53. Yukl, G. *Leadership in Organisations*, 4th ed.; Prentice-Hall: Upper Saddle River, NJ, USA, 1998.
54. Yukl, G. *Leadership in Organisations*, 5th ed.; Prentice-Hall: Upper Saddle River, NJ, USA, 2002.
55. Blanchard, K. *Leading at a Higher Level: Blanchard on Leadership and Creating High Performing Organisations*; FT Press: Upper Side River, NJ, USA, 2018.
56. Rappaport, J. In praise of paradox: A social policy of empowerment over prevention. *Am. J. Community Psychol.* **1981**, *9*, 1–25. [CrossRef] [PubMed]
57. Wallerstein, N. What is the evidence on effectiveness of empowerment to improve health? Copenhagen: WHO Regional Office for Europe (Health Evidence Network Report). In *Health Evidence Network*; WHO Regional Office for Europe Scherfigsvej 8 DK-2100 Copenhagen: Copenhagen, Denmark, 2006. Available online: <http://www.euro.who.int/Document/E88086.pdf> (accessed on 18 March 2021).