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*Evolving leadership in the digital age: A literature review on  
essential competencies for managing digital platforms*

**ABSTRACT:** The digital age has transformed leadership, especially within the field of digital platforms, increasingly vital for business development, operational efficiency, and customer engagement. As organizations rely more on these platforms, traditional leadership skills prove insufficient to address the unique challenges and opportunities they present. This literature review identifies essential competencies for effective digital leadership, including digital literacy, agility, data-driven decision-making, remote team management, and fostering innovation. It also emphasizes the importance of strategic foresight, ethical leadership, user-centric design, change management, and collaboration. These competencies are critical for leaders to tackle the problems of digital transformation, ensure cybersecurity, balance innovation with operational stability, and maintain

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digital trust. The study introduces a comprehensive framework tailored to the demands of digital platforms, offering practical insights into how leadership must progress to fully leverage these platforms and sustain long-term growth. This review contributes to the understanding of digital leadership, providing a structured approach for organizations aiming to thrive in an increasingly dynamic and digital business landscape.

**KEYWORDS:** leadership competencies, cybersecurity, change management, innovation

**SUMMARY:** 1. Introduction. - 2. Methodology. - 3. Digital leadership competencies: A theoretical and applied perspective - 4. Proposed leadership competencies framework: An applied approach. - 5. Challenges in digital leadership and emerging trends. - 6. Conclusions. - 7. Future research directions.

## 1. Introduction

The rapid evolution of technology and the growth of digital platforms have fundamentally transformed the field of leadership. As organizations increasingly depend on digital technologies, the competencies required to navigate and excel in these environments have evolved. This shift necessitates a new kind of leadership, digital leadership, which focuses on the skills and attributes necessary for leading organizations through digital

transformation. While traditional leadership focuses on stable, hierarchical decision-making, digital leadership in startups is characterized by fluid, dynamic roles that leverage digital tools for competitive advantage (Hendrasto et al., 2019). Effective change management in the digital era requires leaders to leverage new communication technologies, such as social media, to engage and align stakeholders, a concept detailed by Treem and Leonardi (2017).

Digital leadership can be defined in various ways. According to Avolio, et al. (2014), digital leadership involves the “practices and behaviors associated with influencing, motivating, and enabling others to contribute towards the effectiveness and success of the digital transformation and innovation.” This definition underscores the role of digital leaders in driving transformation and fostering innovation within organizations. Another perspective, offered by Kane et al. (2015), describes digital leadership as “the ability to create a vision for the organization that leverages digital technologies to achieve business goals and to lead the organization towards that vision.” This highlights the strategic aspect of digital leadership, where the integration of digital technologies into business strategies is key to long-term success.

Similarly, understanding digital platforms is essential to grasp the full scope of digital leadership. Digital platforms are defined as “technology-enabled business models that create value by facilitating exchanges between two or more interdependent groups, usually consumers and producers” (Parker, et al. 2016). These platforms act as intermediaries,

connecting different stakeholders and generating value through their interactions. Gawer (2014) expands on this by defining digital platforms as “a set of shared tools, technologies, and services that enable multiple participants to innovate and co-create value.” This perspective emphasizes the collaborative and innovation-driving potential of digital platforms.

Given the rapidly evolving digital landscape, where organizations increasingly depend on digital platforms for business development, operational efficiency, and customer engagement, understanding these shifts in leadership is crucial. The rise of digital platforms has not only transformed business models but also necessitated a reevaluation of leadership competencies. Traditional leadership skills, while still important, are often inadequate for addressing the unique challenges and opportunities presented by digital platforms.

Therefore, this study seeks to answer the research question: What are the key competencies required for effective digital leadership in the context of digital platforms? To address this, the study has three main objectives: (1) to identify and analyze the digital leadership competencies that contribute to business development and success on digital platforms; (2) to examine the challenges that digital leaders face when managing and developing digital platforms; and (3) to propose a leadership competencies framework suitable for leading digital platforms effectively. By exploring these areas, this research aims to contribute to a broader understanding of how leadership must progress to meet the demands of the digital age and

provide practical insights for organizations striving to succeed in this rapidly changing ecosystem.

## **2. Methodology**

The author collected scientific contributions using the digital resources subscribed by NOVA University of Lisbon – School of Social Sciences and Humanities as the primary source. Given the novelty of the focal phenomenon and the emerging nature of the literature, a broader scope was required. Therefore, the databases used included Web of Science, Scopus, Wiley, and SAGE Journals, enabling a comprehensive search across a wide array of scholarly outlets. The document types considered in this research were articles, review articles, early access, book chapters, and proceeding papers. To select the most pertinent studies, the researcher adopted a multi-step approach, as suggested by Di Stefano et al. (2010). The initial keyword search included terms such as “digital leadership,” “virtual leadership,” “e-leadership,” “digital platform,” and “competencies,” which yielded 91,195 publications. The study period was confined to the years 2000 to 2024. The author chose this timeline because Avolio et al. (2000) coined the term e-leadership or digital leadership to connect leadership and technology in 2000. This resulted in a total of 60,838 publications. The research was specifically limited to the subject area of business management to ensure relevance to the study’s focus.

Conducting it within the management category narrowed the publications to 563. The researcher then applied a “highly cited” filter, narrowing the pool to 345 publications. These studies were initially screened based on their titles and abstracts, leading to the exclusion of 138 studies deemed irrelevant. After this preliminary screening, 82 studies were assessed for eligibility based on their full text, and 30 studies were ultimately included in this literature review.

### **3. Digital leadership competencies: A theoretical and applied perspective**

This section explores the conceptual understanding of essential competencies for digital leadership, focusing on their definitions, importance, and theoretical underpinnings.

- **Digital literacy and technological acumen** Digital literacy involves the effective use and understanding of digital technologies, essential for leaders to strategically leverage technology to achieve business goals. This concept extends to technology acumen, requiring a deep understanding of how to integrate new technologies into existing business processes to foster innovation and growth. The importance of this competency is supported by theories of digital transformation, which posit that leaders must be technologically fluent to successfully navigate and lead in a digital-

first world (Avolio et al., 2014; Kane et al., 2015; Sousa & Rocha, 2019; Şişu, 2023; Basu, 2022).

- **Agility and adaptability** Leadership agility involves the ability to respond swiftly to changes in technology, market conditions, and consumer behavior. Adaptability, closely related, refers to the capacity to pivot strategies and operations in response to new challenges and opportunities. Theories of dynamic capabilities highlight the necessity of agility for sustaining a competitive advantage in rapidly changing environments (Teece, 2007; Gregori & Hellemans, 2023; Pham et al., 2023).
- **Data-driven decision-making** This competency involves making strategic decisions based on data analysis and interpretation, using data analytics to enhance user experience, optimize platform performance, and identify new opportunities. Decision theory supports that decisions based on empirical data are more likely to lead to successful outcomes (Simon, 1977; Corsaro & Anzivino, 2021; Mithas & Rust, 2021).
- **Ethical leadership** Ethical leadership involves leading with integrity and adhering to moral principles, particularly crucial in managing data privacy and cybersecurity in the digital age. Theories of corporate social responsibility (CSR) and stakeholder theory support this competency, emphasizing that leaders must consider the broader societal impacts of their decisions (Freeman, 1984; Mithas & Rust, 2021; Singh, 2024).
- **Remote team management** The ability to lead and coordinate geographically dispersed teams using digital tools is increasingly vital. Effective remote leadership requires strong interpersonal skills to build

trust and maintain team cohesion, challenges that theories of virtual teams address (Lipnack & Stamps, 2000; Auvinen et al., 2019; Pham et al., 2023).

- **Visionary leadership** Visionary leadership involves foreseeing future trends and guiding the organization towards long-term success. Rooted in transformational leadership theory, this competency is crucial for driving continuous innovation and maintaining a competitive edge in rapidly evolving markets (Bass, 1985; Gregori & Hellemans, 2023; Müller & Klein, 2022).
- **Strategic foresight** Strategic foresight allows leaders to anticipate and prepare for future challenges by monitoring the external environment and understanding emerging trends. This competency is underpinned by scenario planning and strategic management theories, emphasizing the importance of anticipating potential disruptions and preparing accordingly (Schoemaker, 1995; Faraj et al., 2011; Brynjolfsson & McAfee, 2014).

#### **4. Proposed leadership competencies framework: An applied approach**

Building on the theoretical competencies outlined above, this section presents a practical framework for applying these competencies within organizations, categorized into three layers—Foundational, Strategic, and Operational.

##### **Foundational competencies**

- **Digital literacy and technology acumen:** Leaders should prioritize continuous learning through workshops, training programs, and certification courses (Avolio et al., 2014; Kane et al., 2015).
- **Ethical leadership:** Developing robust data protection policies measured by compliance rates and trust levels among stakeholders (Freeman, 1984; Mithas & Rust, 2021; Singh, 2024).

#### **Strategic competencies**

- **Agility and adaptability:** Foster a culture that embraces change by implementing agile methodologies and encouraging flexibility among employees (Gregori & Hellemans, 2023; Pham et al., 2023).
- **Strategic foresight:** Conduct environmental scanning and develop proactive strategies to address potential disruptions (Faraj et al., 2011; Brynjolfsson & McAfee, 2014).

#### **Operational competencies**

- **Data-driven decision-making:** Utilize data analytics to inform strategic decisions, measured by improvements in KPIs (Corsaro & Anzivino, 2021; Mithas & Rust, 2021).
- **Remote team management:** Use digital communication and collaboration tools effectively, measured by employee satisfaction and productivity (Auvinen et al., 2019; Pham et al., 2023).

### **5. Challenges in digital leadership and emerging trends**

While mastering key competencies is essential, leaders must navigate significant challenges that impact their effectiveness. These include managing digital transformation, cybersecurity, balancing innovation with operational stability, and building and maintaining digital trust (Braojos, 2024; Gregori & Hellemans, 2023; Westerman et al., 2014; Mithas & Rust, 2021; Corsaro & Anzivino, 2021; Singh, 2024). Van Wart et al. (2019) explore the challenges and strategies around the integration of information and communication technology in leadership, underscoring the evolution of e-leadership models to accommodate the increasing reliance on digital technologies in organizational settings.

Leaders must adapt to emerging trends such as digital literacy, data-driven decision-making, remote and hybrid work models, ethical leadership, and user-centric design, which are reshaping organizational operations and competitiveness in a rapidly evolving digital landscape (Şişu, 2023; Basu, 2022; Avolio et al., 2014; Corsaro & Anzivino, 2021; Mithas & Rust, 2021; Auvinen et al., 2019; Pham et al., 2023; Westerman, Bonnet, & McAfee, 2014). The evolution of business strategies with the advent of digital platforms suggests a shift towards more integrative and network-focused approaches (McIntyre & Srinivasan, 2017), which are essential for navigating the complexities of the digital economy.

## 6. Conclusions

This literature review has explored the developing landscape of leadership in the digital age, focusing particularly on the unique demands of digital platforms. As organizations increasingly depend on these platforms for business growth, operational efficiency, and customer engagement, the competencies required for effective leadership have expanded beyond traditional capabilities. The key competencies highlighted in this review, such as digital literacy, agility, data-driven decision-making, remote team management, and innovation, are crucial for navigating the complexities of digital platforms. As discussed in sections on “Digital Literacy and Technological Acumen” and “Data-Driven Decision-Making,” these skills enable leaders to leverage technological advancements effectively. The importance of strategic foresight, ethical leadership, user-centric design, change management, and collaboration was also emphasized, aligning with our proposed framework which offers a structured approach to developing these necessary competencies. By focusing on these core areas, leaders can better manage, maintain competitiveness, and drive innovation while aligning their strategies with broader societal values and anticipating future challenges. This review contributes to the growing body of knowledge on digital leadership by offering practical insights and a clear, actionable framework for success in the digital era.

## **7. Future research directions**

To further develop our understanding of digital leadership competencies, future research should focus on the following key areas:

- **Empirical Validation:** Future studies should empirically test the effectiveness of the proposed framework across different industries and contexts to confirm its applicability. This validation can be achieved through quantitative metrics and qualitative feedback from implementing the framework in diverse organizational settings, as outlined in the “Operational Competencies” section.
- **Cultural, sectoral, and regional adaptation:** Investigating how these competencies adapt to various cultural, sectoral, and regional contexts will provide valuable insights into their flexibility and universal application. This research can build on the initial theoretical foundations laid out in the “Strategic Competencies” section to explore the nuances introduced by different cultural and economic environments.
- **Impact of emerging technologies:** With the rapid advancement of technologies such as AI and blockchain, it is essential to examine how these innovations reshape the landscape of leadership excellences. This exploration should extend the discussion from the “Emerging Trends” section, looking into how leaders can integrate these technologies into their strategic decision-making processes.
- **Ethical challenges:** Addressing the ethical challenges posed by digital platforms, including issues related to data privacy and AI ethics, remains crucial. Future research should delve deeper into developing responsible leadership practices that address these challenges, ensuring alignment with

ethical standards and societal expectations. This would build on the ethical discussions in the “Ethical Leadership” section, using real-world case studies to illustrate how leaders navigate these complex issues.

### References

1. Auvinen, T., Aaltio, I., & Blomqvist, K. (2019). Evolution of strategy narration and leadership work in the digital era. *Journal of Leadership Studies*, 13(1), 15-30.
2. Avolio, B. J., Kahai, S. S., & Dodge, G. E. (2000). E-leadership: Implications for theory, research, and practice. *The Leadership Quarterly*, 11(4), 615-668. [https://doi.org/10.1016/S1048-9843\(00\)00062-X](https://doi.org/10.1016/S1048-9843(00)00062-X)
3. Avolio, B. J., Sosik, J. J., Kahai, S. S., & Baker, B. (2014). E-leadership: Re-examining transformations in leadership source and transmission. *The Leadership Quarterly*, 25(1), 105-131.
4. Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.
5. Basu, R. (2022). Impact of digital platform on e-leadership. *Journal of Positive School Psychology*, 6(2), 882-887.
6. Braojos, J. (2024). Empowering organizational commitment through digital transformation. *Information Systems Journal*.
7. Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.
8. Corsaro, D., & Anzivino, E. (2021). Understanding value creation in a digital context: An empirical investigation of B2B. *Business Strategy and the Environment*, 30(1), 75-91.

9. Di Stefano, G., Peteraf, M., & Verona, G. (2010). Dynamic capabilities deconstructed: A bibliographic investigation into the origins, development, and future directions of the research domain. *Industrial and Corporate Change*, 19(4), 1187-1204. <https://doi.org/10.1093/icc/dtq027>
10. Faraj, S., Leonardi, P. M., & Te'eni, D. (2011). From local knowledge to global knowledge: Digital tools, and the communication of culture in global organizations. *MIS Quarterly*, 35(2), 431-442.
11. Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pitman.
12. Gawer, A. (2014). Bridging differing perspectives on technological platforms: Toward an integrative framework. *Research Policy*, 43(7), 1239-1249.
13. Gregori, G. L., & Hellemans, M. (2023). Sustainable entrepreneurship on digital platforms and the enactment of digital transformation. *Business Strategy and the Environment*, 32(2), 547-563.
14. Hendrasto, N., Dharmawan, A. H., Sumardjo, & Baga, L. M. (2019). Leadership theory in the digital era: A preliminary investigation to leadership in the digital startup. *Bisnis & Birokrasi: Jurnal Ilmu Administrasi dan Organisasi*, 26(2), 10-30.
15. Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2015). Strategy, not technology, drives digital transformation. *MIT Sloan Management Review*, 14(1), 30-35.
16. Lipnack, J., & Stamps, J. (2000). *Virtual teams: People working across boundaries with technology*. John Wiley & Sons.

17. McIntyre, D. P., & Srinivasan, A. (2017). Networks, platforms, and strategy: Emerging views and next steps. *Strategic Management Journal*, 38(1), 141-160.
18. Mithas, S., & Rust, R. T. (2021). How to choose the right strategy for digital transformation. *Journal of Business Strategy*, 42(3), 34-42.
19. Müller, R. M., & Klein, S. (2022). Digital leadership: Competencies and behaviours required for digital transformation. *Journal of Leadership and Management*, 30(1), 45-60.
20. Parker, G., Van Alstyne, M., & Choudary, S. P. (2016). *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. W. W. Norton & Company.
21. Pham, N. T., Tuan, T. H., Thuy, V. T. N., Hoang, H. T., & Hoang, G. (2023). *Improving employee outcomes in the remote working context: A time-lagged study on digital-oriented training, work-to-family conflict and empowering leadership*. Asia Pacific Journal of Human Resources. <https://doi.org/10.1111/1744-7941.12374>
22. Schoemaker, P. J. H. (1995). Scenario planning: A tool for strategic thinking. *Sloan Management Review*, 36(2), 25-40.
23. Simon, H. A. (1977). *The new science of management decision*. Prentice Hall.
24. Singh, R. (2024). Assessing digital capability for twin transition and profitability: From firm resources to firm performance. *Business Ethics, Environment & Responsibility*.
25. Sousa, M. J., & Rocha, Á. (2019). Skills for disruptive digital business. *Journal of Business Research*, 94, 257-263.

26. Şişu, J. A. (2023). Digital leadership competencies: A systematic literature review. *Journal of Leadership Studies*, 14(2), 35-48.
27. Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
28. Treem, J. W., & Leonardi, P. M. (2017). Perspectives on technology and organizational change: The uptake of social media in organizations. *Journal of Applied Communication Research*, 45(1), 59-76.
29. Van Wart, M., Roman, A., Wang, X., & Liu, C. (2019). Integrating ICT adoption issues into (e-)leadership theory. *Telematics and Informatics*, 36, 48-58.
30. Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Review Press.

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