



Research Article

Digital Leadership in Hybrid and Remote Work Environments: A Systematic Literature Review (2020-2025)

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ABSTRACT

The rapid transition to hybrid and remote work environments has elevated the importance of digital leadership, particularly in managing dispersed teams. This systematic literature review (SLR), covering peer-reviewed publications from 2020 to 2025, explores three dimensions: (1) the competencies essential for effective digital leadership, (2) the challenges encountered by leaders in hybrid and remote settings, and (3) the strategies that can enhance team performance and collaboration. Following PRISMA 2020 guidelines, 114 peer-reviewed articles indexed in Scopus were systematically identified, screened, and thematically analyzed. Thematic coding proceeded through iterative consistency checks to ensure reliability. Despite a growing body of scholarship on digital leadership, prior reviews have addressed hybrid and fully remote work contexts separately, without systematically comparing their distinct leadership demands or examining how competencies such as emotional intelligence and digital communication function as jointly enabling capacities. The findings identify five recurrently discussed leadership competencies - emotional intelligence, communication skills, adaptability, digital literacy, and cultural intelligence - and five primary challenges: communication barriers, erosion of team cohesion, trust-building difficulties, threats to employee well-being, and challenges in sustaining organizational culture. Critically, this review reveals that hybrid work reshapes leadership priorities in ways qualitatively distinct from fully remote contexts, particularly regarding proximity bias and co-location asymmetry. These insights extend transformational and adaptive leadership frameworks into the digital domain. All findings are derived from secondary literature synthesis and are intended to guide future empirical investigation rather than to serve as universal prescriptions.

1. INTRODUCTION

The rapid evolution of digital technologies, accelerated by the COVID-19 pandemic, has brought profound changes to the way organizations operate and manage their workforce. One of the most notable shifts is the widespread adoption of hybrid and remote work models, which have become integral components of the modern workplace. As companies continue to embrace these work structures, the demand for effective digital leadership has grown significantly. Digital leadership, defined as the ability to guide and manage teams in digital environments, plays a critical role in maintaining organizational efficiency, cohesion, and innovation. In hybrid and remote settings, where employees are often geographically dispersed and

rely heavily on digital communication tools, the leadership practices that were once grounded in face-to-face interactions are no longer sufficient. Leaders must adapt their approaches to effectively manage teams across multiple locations, often with varying time zones and cultural backgrounds. This transition has brought about new challenges that require a fresh understanding of what it means to lead in the digital age.

The rise of remote and hybrid work environments has necessitated a rethinking of leadership competencies, particularly as these models blur the lines between traditional office-based structures and fully virtual teams. As organizations shift towards these work models, studies have increasingly focused on the competencies that digital leaders must possess to effectively manage diverse teams. These competencies include not only traditional leadership



skills such as decision-making and problem-solving but also new abilities related to digital communication, technology management, and emotional intelligence. Scholars like Asfahani et al. (2024) and Bouisse-Bloigu & Chamakiotis (2025) have underscored the significance of emotional intelligence in digital leadership, especially in remote environments, where leaders must navigate interpersonal relationships without the benefit of in-person interactions. Moreover, the integration of digital tools such as cloud-based collaboration platforms and project management software has further complicated leadership dynamics. Consequently, digital leaders are required to be adept in both technological tools and human interaction, making their role multifaceted and complex. This shift in leadership dynamics calls for a comprehensive study that examines the key competencies required for effective leadership in hybrid and remote work environments.

A central challenge of digital leadership in hybrid and remote settings is managing communication and collaboration across dispersed teams. Unlike traditional leadership, digital leaders cannot rely on face-to-face interaction to maintain cohesion, gauge emotional states, or build trust; instead, they must leverage digital tools purposefully while simultaneously addressing the human dimensions of leadership. Crucially, the literature reveals that communication effectiveness and emotional intelligence (EI) are not independent competencies but are jointly enabling: digital communication tools expand a leader's reach, yet without the EI to interpret, respond to, and manage the emotional dynamics of distributed teams, those tools remain insufficient (A. Asfahani et al., 2024; Bouisse-Bloigu & Chamakiotis, 2025a; Efimov et al., 2022). Leaders who integrate high EI with strong digital communication skills are better positioned to foster trust, resolve conflict, and sustain engagement, precisely the outcomes most at risk when teams are geographically dispersed. This interdependence is particularly pronounced in hybrid environments, where the coexistence of in-person and remote team members creates unequal access to informal communication and demands deliberate inclusivity from leaders (Caputo et al., 2024).

Hybrid and Remote Work Environment

The landscape of work has undergone a profound transformation driven by technological advancements and global events, notably the COVID-19 pandemic (Choudhury et al., 2021; Molino et al., 2020; Wang et al., 2021). This shift has accelerated the adoption of remote and hybrid work models, fundamentally changing organizational structures, workflows, and management practices (Renard et al., 2021; Wang et al., 2021; Zhou, 2024). Hybrid work, which blends on-site and remote work, can be understood through a multidimensional framework encompassing modality, location, and

temporality, reflecting the complex ways in which work is now organized (Choudhury et al. 2021; Bellis et al. 2024; Urrila 2025; Asfahani 2025).

Hybrid and remote work models offer significant benefits, including increased flexibility, improved work-life balance, and access to a broader talent pool. Employees gain autonomy over when and where they work, which can enhance job satisfaction and productivity (Imaniyati et al., 2025; Topcuoglu et al., 2023; Waizenegger et al., 2020). However, these models also introduce challenges, including maintaining effective communication, fostering a sense of belonging, and sustaining organizational culture across dispersed teams (Bellis et al., 2024; Imaniyati et al., 2025; Urrila, 2025). The lack of physical proximity can lead to social isolation and difficulties in collaboration, necessitating that organizations reassess their leadership styles and communication strategies (Choudhury et al., 2021; Waizenegger et al., 2020).

From a management perspective, hybrid work demands new approaches to supervision and performance evaluation. Traditional metrics based on physical presence are becoming less relevant, shifting the focus toward outcome-based assessments and clear goal setting (Barnes et al. 2024; Asfahani 2025). Digital tools, such as video conferencing, instant messaging, and collaborative platforms, are essential for facilitating seamless communication and coordination among remote and on-site employees (Bellis et al., 2024; Matsunaga, 2024). Moreover, hybrid work represents a structural shift that transcends temporary adjustments, signaling a long-term transformation in how organizations operate. This evolution requires organizations to invest in digital infrastructure, cultivate flexible work policies, and develop leadership competencies that can navigate the complexities of distributed teams (Bastidas et al., 2023). The success of hybrid and remote work models hinges on striking a balance between technological enablement and human-centric management practices that prioritize employee well-being and engagement (Bastidas et al. 2023; Urrila 2025; Asfahani 2025).

The acceleration of hybrid and remote work models has introduced significant structural and cultural transformations within organizations (Caputo et al., 2024; Ebojoh & Högberg, 2024; Sakal, 2024). Hybrid work refers to a flexible model that combines on-site and remote work, whereas remote work is entirely location-independent (Choudhury et al., 2021; Sakal, 2024). Both models are associated with challenges related to communication, collaboration, trust-building, employee engagement, and performance management. Prior research has extensively explored the impact of remote work on organizational productivity and employee well-being (Choudhury et al., 2021; Imaniyati et al., 2025; Urrila, 2025; Wang et al., 2021). However, limited attention has

been given to the leadership dimensions necessary to sustain hybrid and remote workforce ecosystems. Leadership in these settings demands heightened digital fluency, emotional intelligence, and virtual team management capabilities (Topcuoglu et al. 2023; Bellis et al. 2024; Asfahani 2025).

Conceptualizing Digital Leadership

The rapid development of digital technologies has driven significant changes in the way work is structured, particularly the rise of hybrid and remote work, which has substantially altered the way organizations operate and how their leaders manage them. The COVID-19 pandemic has acted as a catalyst for the widespread adoption of hybrid working models, which combine in-person and remote work arrangements (Choudhury et al., 2021; Waizenegger et al., 2020). While this shift has brought benefits such as better work-life balance and greater flexibility for employees, it has also created new challenges for leaders, who must now find ways to ensure clear communication, foster strong team relationships, and maintain a cohesive organizational culture (Choudhury et al., 2021; Waizenegger et al., 2020; Wang et al., 2021).

These evolving challenges require leaders to navigate the complexities that come with distributed teams, multiple digital communication tools, and the need to foster trust and engagement in the absence of physical proximity (Urrila, 2025). This new environment requires leaders to develop new competencies, including digital skills, emotional intelligence in a virtual environment, and the ability to manage diverse and geographically dispersed teams. As a result, digital leadership has emerged as a critical framework for addressing these challenges and capitalizing on the opportunities presented by digital transformation and hybrid work models (Bastidas et al., 2023; Rakovic et al., 2024; Tigre et al., 2023).

Digital leadership has emerged as a critical competency in contemporary organizational settings, characterized by the integration of digital technologies into leadership practices (Matsunaga, 2024; Tigre et al., 2023; Topcuoglu et al., 2023). Defined broadly, digital leadership refers to a leader's ability to leverage digital tools and data to influence, motivate, and guide teams toward achieving organizational goals (Bastidas et al., 2023; Bellis et al., 2024; Özkan Alakaş, 2024; Tigre et al., 2023). Unlike traditional leadership, digital leadership emphasizes agility, innovation, and technological fluency (Choudhury et al., 2021; Özkan Alakaş, 2024). Several studies have positioned digital leadership within the broader discourse of transformational and adaptive leadership, highlighting traits such as digital visioning, change facilitation, and digital literacy as key components (Bellis et al., 2024; Matsunaga, 2024; Tigre et al., 2023; Van Wart et al., 2019). These competencies are increasingly indispensable in navigating volatile, uncertain, complex, and ambiguous

environments, particularly those shaped by rapid digitalization (Rakovic et al., 2024).

Changes in work models, particularly with the increasing adoption of hybrid and remote work, further underscore the importance of digital leadership (A. M. Asfahani, 2025; Rakovic et al., 2024). This working model offers flexibility and efficiency but also presents new challenges, such as maintaining effective communication, building trust, and maintaining organizational culture amidst limited physical interaction (Ebojoh & Högberg, 2024; Singh Chauhan & Thangavelu, 2024). Therefore, digital leadership is crucial for directing organizations to adapt quickly, utilize data and technology optimally, and foster continuous innovation (Tigre et al., 2023). In this context, digital leadership encompasses not only technical skills but also strategic vision, digital communication skills, and resilience and adaptability in navigating the dynamics of a changing business environment (Rakovic et al., 2024; Tigre et al., 2023). Digital leaders must be able to inspire and empower their teams to collaborate effectively in an increasingly distributed and technology-based work environment.

Digital Leadership for Hybrid and Remote Environments

Managing hybrid and remote teams effectively requires a specialized set of leadership competencies that address the unique challenges posed by physical distance, digital communication, and dispersed work arrangements (Caputo et al., 2024; Ebojoh & Högberg, 2024; Urrila, 2025; Walk, 2024). Effective digital leadership in hybrid work environments is characterized by a blend of agility, strong communication skills, and the ability to balance technological and human elements (Tigre et al., 2023; Van Wart et al., 2019). Leaders must navigate the complexities of both digital and physical realms, adapting to the evolving needs of hybrid situations. This requires a strategic approach that integrates technology with interpersonal connections to foster innovation and maintain employee engagement (Rakovic et al., 2024).

Recent studies on digital leadership in the evolving context of hybrid work environments highlight the need for digital leaders to embody agility, demonstrating the ability to adapt swiftly to changing circumstances while fostering innovation (Bellis et al., 2024; Özkan Alakaş, 2024). This dynamic approach enables the harmonious coexistence of digital and physical workspaces, effectively balancing these dimensions to drive organizational success (Bellis et al., 2024). Agile leadership principles enable leaders to set clear strategic directions and tailor their behaviors to specific operational contexts, ensuring leadership remains relevant and impactful amid continuous change (Bellis et al., 2024). Leaders must excel in facilitating clear, consistent interactions across both virtual and face-to-face settings to maintain alignment and cohesion (Caputo et al., 2024). Providing timely, constructive feedback and

employing efficient remote management practices are crucial for keeping team members motivated and focused on shared goals (Caputo et al., 2024; Ebojoh & Högberg, 2024; Rakovic et al., 2024).

Balancing technology with human connection is critical for maximizing team performance and engagement. Leaders need to integrate digital tools seamlessly with interpersonal interactions, bridging the divide between physical and digital realms to foster meaningful relationships within teams (Matsunaga, 2024; Rakovic et al., 2024; Tigre et al., 2023). Mastery of both technical skills and emotional intelligence equips leaders to navigate technological disruptions while preserving the human bonds that underpin organizational culture (Imaniyati et al., 2025; Rakovic et al., 2024; Zhou, 2024)

Moreover, advancing technological proficiency and cultivating inclusive workplace cultures are vital for sustaining hybrid work models. Leaders are tasked with leveraging emerging technologies such as artificial intelligence, augmented reality, and virtual reality to enhance collaboration and communication processes (Matsunaga, 2024; Sakal, 2024). At the same time, they must proactively address challenges related to employee privacy and cybersecurity to ensure the long-term viability and trustworthiness of hybrid work environments (Bastidas et al., 2023; Singh Chauhan & Thangavelu, 2024; Urrila, 2025).

While agility, communication, and technological integration form the foundation of effective digital leadership in hybrid settings, leaders must also remain vigilant about safeguarding employee well-being and privacy. Maintaining a human-centered approach amidst technological advancements is essential to achieving sustainable organizational success in an increasingly digital workplace (A. M. Asfahani, 2025; Tigre et al., 2023; Urrila, 2025).

Moreover, the literature underscores the importance of digital empathy, transparency, and inclusive communication as foundational elements of effective digital leadership in remote settings (A. M. Asfahani, 2025; Ebojoh & Högberg, 2024; Sakal, 2024; Walk, 2024). Research also highlights the interplay between digital transformation strategies and leadership agility, suggesting that successful digital leaders are those who align technological advancements with human-centric values (Bellis et al., 2024; Lathabhavan & Keisham, 2024; Rakovic et al., 2024; Tigre et al., 2023; Van Wart et al., 2019).

Although prior systematic reviews have made valuable contributions to the digital leadership literature, they present notable limitations that this study seeks to address. Caputo et al., (2024) offer a comprehensive synthesis of leadership in virtual and face-to-face teams, yet do not differentiate the distinct leadership demands of hybrid

versus fully remote contexts, treating both as broadly equivalent. Similarly, Tigre et al., (2023) provide a useful bibliometric mapping of digital leadership research but stop short of offering an integrative framework that connects competencies, challenges, and strategies across work contexts. Most prior reviews, moreover, have treated emotional intelligence and digital communication as parallel but separate constructs, without examining how they interact as jointly enabling capacities. This study addresses these limitations directly by synthesizing evidence from 2020 to 2025 across both hybrid and fully remote contexts simultaneously.

Although a considerable body of literature examines digital leadership across management, information systems, and organizational psychology, significant gaps remain that this review seeks to address. First, most existing studies examine remote or hybrid work contexts in isolation, without systematically comparing the distinct leadership demands each context places on leaders. Second, the interaction between emotional intelligence and digital communication, both recurrently discussed as critical competencies, has not been synthesized as jointly enabling capacities; they are typically treated as separate constructs. Third, no integrative framework currently maps how competencies, challenges, and strategies interconnect differently across hybrid versus fully remote settings. This review directly addresses these three gaps by synthesizing peer-reviewed literature from 2020 to 2025 across both contexts.

A systematic literature review necessitates the formulation of precisely articulated research inquiries that delineate the trajectory of the synthesis and underpin the methodology of the search strategy (Hiebl 2021). Therefore, our research question is formulated as follows:

RQ1: What competencies are essential for digital leadership in hybrid and remote environments?

RQ2: What challenges do digital leaders face in managing these teams?

RQ3: What strategies can enhance team engagement and collaboration?

2. METHOD

2.1 Review Design and Database Selection

This study employed a Systematic Literature Review (SLR) methodology, following PRISMA 2020 guidelines to ensure transparency, replicability, and methodological rigor in the identification, screening, and inclusion of relevant articles. Scopus was selected as the sole search database due to its comprehensive and well-indexed coverage of management, leadership, and organizational behavior research. The search was conducted on June 16, 2025, using the Boolean query 'Digital' AND 'Leadership'

applied to article titles, abstracts, and keywords, yielding an initial pool of 7,412 records. The authors acknowledge that reliance on a single database constitutes a methodological limitation, as relevant studies indexed in Web of Science, ERIC, or PsycINFO may have been excluded. This limitation is noted explicitly to support future replication efforts that incorporate multi-database searches.

Articles were screened through three sequential stages. In the first stage, publications from before 2020 were excluded ($n = 1,996$), reducing the pool to 5,416 records. This temporal boundary was established to ensure findings reflect the post-pandemic acceleration of hybrid and remote work. In the second stage, only articles classified within the subject areas of business, management, and accounting were retained, narrowing the pool to 941 articles. In the third and final stage, articles that did not explicitly include the concept of "digital leadership" in their focus were excluded ($n = 827$), yielding a final analytical corpus of 114 peer-reviewed articles. This step-by-step screening process is illustrated in the PRISMA 2020 flow diagram (Fig. 1). While no formal journal ranking or quantitative quality scoring was applied beyond database indexing and relevance screening, inclusion of Scopus-indexed articles served as a baseline quality assurance criterion, as Scopus requires peer review and meets established academic standards.

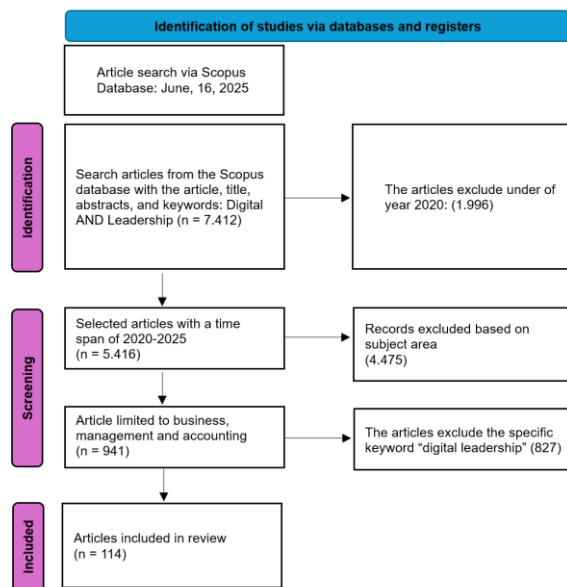


Fig. 1 Extraction and inclusion of relevant contributions: PRISMA 2020

2.2 Data Analysis

The data analysis process was conducted using a thematic analysis approach, which is commonly used in systematic literature reviews to identify, analyze, and report patterns or themes within qualitative data (Braun & Clarke, 2006). This approach allows for an in-depth understanding of the competencies required for effective digital leadership in hybrid and remote work settings, as well as the challenges

faced by digital leaders and the strategies that have been proposed to address these challenges.

The thematic analysis involved several key stages. First, each of the 114 articles was carefully reviewed to identify the main themes related to digital leadership. These themes were then categorized into broad topics, such as leadership competencies, challenges in managing remote teams, and best practices for fostering collaboration and engagement. Each theme was analyzed to determine its relevance and significance to the research questions, and connections were drawn between different studies to highlight areas of consensus or divergence.

2.3 Thematic Coding Procedure

Data synthesis was conducted through thematic analysis following the six-phase framework of Braun and Clarke (2006): familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Each of the 114 articles was read in full to identify passages relevant to digital leadership competencies, challenges, and strategies. Initial open codes were assigned to relevant passages, which were subsequently grouped into broader themes through iterative comparison.

To strengthen validity, thematic coding was conducted in two independent passes. In the first pass, codes were assigned without reference to the research questions; in the second pass, codes were mapped to the three RQs. Discrepancies between passes were resolved through deliberate re-reading and consensus. Consistency checks were applied at multiple points throughout the coding process to reduce subjective interpretation and confirm reliable theme identification.

It is important to note that the thematic approach does not yield frequency counts or statistical rankings. Accordingly, findings are reported using language consistent with qualitative synthesis terms such as recurrently emphasized and commonly discussed reflect patterns across studies rather than quantitative dominance. Claims of universality have been deliberately avoided throughout.

3. RESULT AND DISCUSSION

This chapter presents the findings derived from the systematic literature review on digital leadership in hybrid and remote work environments. The results are structured around key themes that emerged from the analysis of the selected articles. These themes include the competencies required for effective digital leadership, the primary challenges digital leaders face, best practices for fostering collaboration and engagement, and the role of emotional intelligence (EI) in managing remote teams. The synthesis of findings is organized in a manner that addresses the research questions posed in the introduction and provides

insights into the current state of knowledge on digital leadership in modern organizational settings.

3.1 Key Competencies for Digital Leadership (RQ1)

The literature recurrently identifies several competencies associated with effective digital leadership in hybrid and remote environments. These competencies include both technical and interpersonal skills, as digital leaders must balance the demands of technology with the need for human-centered leadership practices, as presented in Table 1.

Table 1. Competencies for Digital Leadership in Hybrid and Remote Environments

Competencies for Digital Leadership	Details	References
Emotional Intelligence (EI)	EI enables leaders to recognize, understand, and manage their own emotions and those of others. It is recurrently discussed as foundational for building trust, managing conflicts, and fostering collaboration in remote teams. Leaders with high EI create psychologically safe environments, commonly identified as important for team cohesion and innovation.	(A. M. Asfahani, 2025; Bouisse-Bloigu & Chamakiotis, 2025; Efimov et al., 2022)
Communication Skills	Effective communication is recurrently emphasized in digital leadership. Leaders must clearly and consistently communicate using digital tools. Balancing structured communication (e.g., virtual meetings) with informal interactions (e.g., virtual coffee chats) is commonly discussed as necessary to maintain engagement and trust.	(Hincapie & Costa, 2024; Bouisse-Bloigu & Chamakiotis, 2025; Boccoli et al., 2024)
Adaptability and Agility	Digital leaders must be adaptable to evolving work conditions and technologies. The ability to pivot quickly in response to changes in organizational needs or team dynamics is recurrently described as important. Leaders	(Kaiyai et al. 2024; Bouisse-Bloigu and Chamakiotis 2025)

should cultivate a culture of adaptability, encouraging teams to embrace change and continuous learning.

Digital Literacy	Proficiency in digital tools and platforms, such as project management software and communication platforms, is recurrently identified as a prerequisite for managing remote and hybrid teams. Leaders must ensure all team members are digitally literate and equipped to use these tools effectively.	(Imran et al., 2025)
Cultural Intelligence (CQ)	Leaders must be able to navigate cultural differences and manage cross-cultural communication. High cultural intelligence enables leaders to address misunderstandings, manage conflicts, and foster inclusivity in diverse global teams. This is commonly discussed as particularly relevant in hybrid and remote work environments.	(Imran et al., 2025)

Emotional Intelligence (EI)

A central competency identified across multiple studies is emotional intelligence (EI). EI, the ability to recognize, understand, and manage one's own emotions as well as those of others, is recurrently identified as playing a central role in building trust and fostering collaboration in remote teams (Asfahani 2025; Bouisse-Bloigu and Chamakiotis 2025). Leaders with high EI are better equipped to navigate the complexities of remote communication, manage conflicts, and motivate their teams. This is particularly important in hybrid and remote work environments, where the lack of face-to-face interaction can lead to misunderstandings and decreased engagement. EI also enables leaders to create psychologically safe environments, where team members feel comfortable sharing ideas and concerns, which is commonly discussed as essential for team cohesion and innovation (Efimov et al., 2022).

Communication Skills

Effective communication is another key competency for digital leadership. Several studies suggest the importance of leaders' ability to communicate clearly and consistently in digital environments (Bouisse-Bloigu and Chamakiotis 2025; Hincapie and Costa 2024). Remote and hybrid teams rely heavily on digital tools for communication, and leaders must be proficient in using these tools to ensure that team members are informed, engaged, and aligned with organizational goals. Communication in digital settings must go beyond simply relaying information; it also involves fostering engagement and building relationships. Leaders must balance structured communication, such as virtual meetings and emails, with more informal interactions, such as virtual coffee chats or team-building activities, to maintain a sense of community and trust among remote workers (Boccoli et al., 2024).

Adaptability and Agility

Adaptability is another essential competency for digital leaders, particularly in hybrid and remote work environments where work conditions and technologies are constantly evolving. Several studies suggest that digital leaders tend to be more effective when flexible in their approaches, able to adjust to changing circumstances and new technologies (Kaiyai et al. 2024; Bouisse-Bloigu and Chamakiotis 2025). The ability to pivot quickly in response to changes in organizational needs, team dynamics, or technological advancements is recurrently described as important. Furthermore, digital leaders must cultivate a culture of adaptability within their teams, encouraging members to embrace change and learn new skills as needed. This capacity is commonly discussed as relevant in the fast-paced digital landscape, where staying competitive requires continuous learning and innovation.

Digital Literacy

Digital literacy, or the ability to effectively use digital tools and platforms, is another recurrently discussed competency for digital leadership. Leaders must be proficient in using a variety of digital tools, including project management software, communication platforms, and collaboration technologies (Imran et al., 2025). Digital literacy not only enables leaders to manage remote work more efficiently but also allows them to model effective technology use for their teams. This competency is commonly noted as relevant in hybrid work environments, where team members may be using different tools and platforms depending on whether they are working remotely or in the office. Leaders must ensure that all team members are equipped to use these tools effectively and are supported in their use of technology.

Cultural Intelligence

Cultural intelligence (CQ) is an increasingly important competency for digital leaders managing diverse, global teams. The ability to navigate cultural differences...is recurrently discussed as important in remote and hybrid work environments, where team members may be located in different regions and have varying cultural norms (Schwehn et al., 2025). Leaders with high cultural intelligence are better able to address misunderstandings, manage conflicts, and foster an inclusive and collaborative team environment. The growing trend of global teams in hybrid and remote work settings necessitates leaders who can bridge cultural divides and promote diversity as a strength rather than a challenge.

3.2 Primary Challenges Faced by Digital Leaders (RQ2)

The literature also identifies several key challenges that digital leaders face in managing remote and hybrid teams. These challenges include issues related to communication, team cohesion, trust-building, employee well-being, and maintaining organizational culture, as presented in [Table 2](#).

Table 2. Challenges in Managing Remote and Hybrid Teams

Challenges in Managing Remote and Hybrid Teams	Details	References
Communication Barriers	The lack of face-to-face interaction in digital environments can lead to communication breakdowns. Misunderstandings and engagement issues arise due to the absence of non-verbal cues like body language and tone, making personalized support harder.	Hincapie & Costa, 2024
Team Cohesion and Morale	Physical separation leads to feelings of isolation, negatively impacting team cohesion and morale. Leaders are commonly encouraged to foster connection through regular check-ins, virtual team-building, and transparent communication.	Efimov et al., 2022; Pagnozzi et al., 2024
Trust-Building	Building trust is challenging in remote and hybrid environments due to the absence of personal, face-to-face interactions. Leaders must be transparent, consistent, and empathetic while managing time zone	Bouisse-Bloigu & Chamakiotis, 2025

	differences and ensuring equal access.	
Employee Well-Being and Motivation	Without the structure of in-person interactions, remote employees face risks of burnout, stress, and disengagement. Leaders are recurrently described as needing to ensure work-life balance, offer flexible schedules, and create a culture of psychological safety.	Efimov et al., 2022
Maintaining Organizational Culture	Maintaining organizational culture is difficult due to the lack of informal interactions and shared experiences. Leaders are commonly encouraged to actively communicate and promote core values to maintain unity and inclusivity in geographically dispersed teams.	Pagnozzi et al., 2024

Communication Barriers

One of the primary challenges highlighted across the studies is communication. In remote and hybrid environments, leaders must rely on digital tools to facilitate communication, which can sometimes result in misunderstandings and decreased engagement. As noted by Hincapie & Costa (2024), the lack of face-to-face interaction in virtual settings can lead to communication breakdowns, as non-verbal cues, such as body language and tone of voice, are absent. This can make it more difficult for leaders to gauge team members' emotions, understand their concerns, or provide personalized support. Furthermore, digital communication can be prone to misinterpretation, especially when leaders are unable to clarify or follow up on issues in real-time.

Team Cohesion and Morale

Building and maintaining team cohesion is another significant challenge in remote and hybrid work environments. Several studies emphasize that physical separation can lead to feelings of isolation among team members, which can negatively affect morale and productivity (Efimov et al., 2022; Pagnozzi et al., 2024). Leaders must make deliberate efforts to foster a sense of belonging and connection within their teams. This can be particularly difficult in hybrid environments, where some team members are working in the office while others are remote, leading to a sense of "two-tier" teams. Ensuring that all team members feel equally valued and included requires intentional leadership strategies, such as promoting regular check-ins, virtual team-building activities, and transparent communication.

Trust-Building

Trust is a fundamental component of effective leadership, and it becomes even more challenging to build and maintain in digital environments. The absence of face-to-face interactions makes it harder for leaders to build the personal connections that are essential for fostering trust (Bouisse-Bloigu and Chamakiotis 2025). Additionally, leaders must navigate the challenge of managing team members who may be working in different time zones, making it difficult to establish a consistent and visible leadership presence. Building trust in remote and hybrid teams requires leaders to be transparent, consistent, and empathetic. Leaders must also ensure that all team members have equal access to information and opportunities, which is particularly important in hybrid settings where remote employees may feel overlooked or marginalized.

Employee Well-Being and Motivation

Employee well-being and motivation are critical challenges in remote and hybrid work environments. Without the structure and support provided by in-person interactions, remote employees are at risk of experiencing burnout, stress, and disengagement (Efimov et al., 2022). Leaders must be proactive in monitoring and addressing these issues, ensuring that employees maintain a healthy work-life balance and feel supported in their personal and professional lives. Strategies for maintaining employee well-being include promoting flexible work schedules, encouraging regular breaks, and creating a culture of psychological safety where employees feel comfortable discussing their challenges. Motivating remote workers can also be more difficult, as leaders may struggle to maintain a sense of team spirit and engagement without the benefits of physical presence.

Maintaining Organizational Culture

Maintaining a strong organizational culture in hybrid and remote teams is another challenge identified in the literature. Organizational culture is often reinforced through informal interactions, shared experiences, and face-to-face communication. In remote and hybrid environments, leaders must find new ways to preserve and cultivate organizational culture despite the physical separation of team members. As noted by Pagnozzi et al. (2024), leaders must actively work to ensure that the core values and norms of the organization are communicated and upheld across digital platforms. This requires leaders to be intentional about promoting a sense of unity, inclusivity, and shared purpose within the team, even when team members are geographically dispersed.

3.3 Best Practices for Digital Leadership in Hybrid and Remote Environments (Q3)

To address these challenges, the literature proposes several best practices for digital leadership. These practices focus on improving communication, building trust, maintaining team cohesion, and ensuring the well-being of remote employees, as presented in Table 3.

Table 3. Best Practices for Digital Leadership

Best Practices for Digital Leadership	Details	References
Trust and Inclusion	Leaders must proactively build trust by demonstrating transparency, consistency, and empathy. Regular check-ins, feedback loops, and inclusive leadership practices are recurrently discussed as important for ensuring all team members feel valued and supported.	Bouisse-Bloigu & Chamakiotis, 2025; Hincapie & Costa, 2024
Transformational Leadership	Transformational leadership is recurrently identified as well-suited in remote and hybrid settings. Leaders must inspire and motivate their teams by providing a clear vision, encouraging innovation, and offering emotional support to maintain morale and engagement in virtual environments.	Boccoli et al., 2024
Balancing Structured and Informal Interactions	A balance between structured (task-oriented) and informal interactions (virtual coffee breaks, team-building activities) is necessary to maintain team cohesion and trust in remote environments. Spontaneous social engagement should also be encouraged.	Yarmand et al., 2024
Promoting Employee Well-Being	Leaders should foster work-life balance, offer flexible work arrangements, and	Dixit et al., 2024

create a supportive culture. Regular wellness check-ins, virtual events, and mental health initiatives are commonly recommended for preventing burnout and promoting resilience.

Trust and Inclusion

Fostering trust and inclusion is a central theme in the literature on digital leadership. Leaders must be proactive in building trust with their remote and hybrid teams by demonstrating transparency, consistency, and empathy (Bouisse-Bloigu and Chamakiotis 2025). Regular check-ins and feedback loops are recurrently recommended for maintaining trust and ensuring that team members feel heard and supported. Inclusive leadership practices, such as recognizing the contributions of all team members and providing equal opportunities for participation, are also commonly discussed as important for creating an environment where all employees feel valued and included (Hincapie & Costa, 2024).

Transformational Leadership

Several studies suggest the importance of transformational leadership in remote and hybrid settings. Transformational leaders inspire and motivate their teams by providing a clear vision, encouraging innovation, and offering emotional support (Boccoli et al., 2024). In digital environments, transformational leadership is recurrently discussed as particularly relevant, as it helps maintain morale and motivation in the absence of physical presence. Leaders who demonstrate empathy, enthusiasm, and a commitment to the team's success can foster high levels of engagement and collaboration, even in virtual settings.

Balancing Structured and Informal Interactions

To maintain team cohesion and engagement, digital leaders must strike a balance between structured and informal interactions. While scheduled meetings and task-oriented communication are essential for keeping teams on track, informal interactions, such as virtual coffee breaks or team-building activities, help foster a sense of camaraderie and trust (Yarmand et al., 2024). Leaders should encourage spontaneous interactions and create opportunities for social engagement, even in a digital environment, to ensure that remote employees feel connected and supported.

Promoting Employee Well-Being

Promoting employee well-being is a key strategy for maintaining engagement and motivation in remote and hybrid teams. Digital leaders should encourage flexible work arrangements, promote work-life balance, and create

a culture of support and psychological safety (Dixit et al., 2024). Regular wellness check-ins, virtual social events, and initiatives focused on mental health and stress management can help alleviate the challenges of working remotely. By prioritizing employee well-being, leaders can help prevent burnout and foster a more resilient and engaged workforce.

Role of Emotional Intelligence in Digital Leadership

A recurrently emerging theme in the review is the prominent role of emotional intelligence (EI) in digital leadership. Leaders who exhibit high levels of EI are better able to manage the emotional dynamics of remote and hybrid teams, navigate conflicts, and foster collaboration. EI enables leaders to recognize and address the emotional needs of their team members, ensuring that employees feel valued, supported, and engaged (Sachdeva & Mitra, 2025). Furthermore, leaders with high EI are more adept at creating psychologically safe environments where team members feel comfortable expressing their concerns and ideas, which is commonly discussed as important for maintaining trust and promoting innovation in virtual teams.

Discussion

The findings reveal critical insights into the competencies necessary for effective leadership, the primary challenges leaders face, and the strategies that can be employed to foster collaboration, engagement, and overall team effectiveness. The discussion integrates these findings with existing literature, highlighting areas of agreement, divergence, and implications for both practice and future research.

Significance of Emotional Intelligence in Digital Leadership

One of the most prominent findings of this study is the central role of emotional intelligence (EI) in digital leadership. As the literature has consistently highlighted, emotional intelligence enables leaders to navigate the emotional dynamics of virtual teams, manage conflicts, and foster trust within distributed workforces (Asfahani 2025; Bouisse-Bloigu and Chamakiotis 2025). This study corroborates these findings, showing that EI is crucial in managing remote and hybrid teams, where traditional face-to-face interactions are limited.

Leaders who exhibit high levels of EI are better equipped to respond to the psychological and emotional needs of their team members, which is particularly important in remote work settings where employees may feel isolated or disconnected (Efimov et al., 2024). For instance, the ability to recognize signs of stress or burnout and provide appropriate support can significantly impact the well-being and performance of remote workers. The findings of this study reinforce the idea that EI fosters a sense of

psychological safety, which is essential for innovation and collaboration in digital environments.

While emotional intelligence is not a new concept in leadership theory, its importance in virtual teams has become more pronounced in recent years. Digital leaders with high EI are more adept at building trust, a critical factor in ensuring the cohesion of remote teams (Bouisse-Bloigu and Chamakiotis 2025). Given the absence of non-verbal cues and face-to-face interaction in remote settings, EI helps leaders bridge the communication gap, offering emotional support and making sure team members feel heard and valued. The results of this study affirm that EI is not just beneficial but essential in digital leadership, particularly when managing remote and hybrid teams.

Communication: A Double-Edged Sword

Another critical finding of this study is the importance of effective communication in digital leadership. Communication has always been central to leadership; however, in hybrid and remote work environments, it assumes an even greater significance. Leaders are increasingly relying on digital tools such as video conferencing, instant messaging, and collaborative platforms to manage teams across different time zones and locations. However, as the findings suggest, while digital communication tools provide necessary functionality, they also pose several challenges.

Studies by Hincapie & Costa (Hincapie & Costa, 2024) and Bouisse-Bloigu & Chamakiotis (2025) have pointed out that one of the major limitations of digital communication is the lack of non-verbal cues, which can lead to misunderstandings and hinder the development of rapport among team members. The absence of body language and tone of voice makes it difficult for leaders to gauge team members' emotional states or detect subtle signs of disengagement or distress. This can result in miscommunication, reduced trust, and feelings of isolation among team members (Efimov et al., 2024).

However, this study's findings also indicate that effective leaders in hybrid and remote work environments are those who can skillfully use digital communication tools to bridge the gap. Digital leaders must use both formal, task-oriented communication and informal, social communication to maintain team cohesion and morale (Boccoli et al., 2024). Leaders who rely exclusively on formal communication can risk creating a detached and impersonal work environment. On the other hand, leaders who foster informal interactions—such as virtual coffee breaks, team-building activities, or casual check-ins—can enhance team connection and ensure that remote workers feel valued and included. Thus, while digital communication tools present challenges, they also offer unique opportunities for leaders to foster a sense of

community and belonging, provided they are used strategically.

Trust-Building in Hybrid and Remote Teams

Trust is a cornerstone of effective leadership, and the findings of this study underscore its central role in remote and hybrid teams. Trust-building in digital environments is more challenging than in traditional, face-to-face settings, where leaders can rely on frequent, informal interactions to build rapport and gauge team members' commitment. In contrast, in virtual settings, leaders must work harder to establish and maintain trust, which can be eroded by the physical distance and lack of direct supervision (Bouisse-Bloigu and Chamakiotis 2025).

The results highlight that trust-building in remote teams requires transparency, consistency, and empathy. Leaders must be open and honest in their communication, providing clear expectations and regular feedback. Studies such as those by Hincapie & Costa (2024) emphasize the importance of fostering a culture of trust by maintaining visibility and ensuring that all team members, whether in-office or remote, are treated equally.

Additionally, trust is also related to the perceived legitimacy of remote work arrangements. As found by Pagnozzi et al. (2024), hybrid teams often face the challenge of "proximity bias," where in-office employees may be favored in decision-making, recognition, and access to leadership. Leaders must actively work to mitigate this bias by ensuring that remote employees feel equally engaged and included in organizational activities. The study affirms that building trust in remote and hybrid teams requires intentional and transparent actions, such as frequent check-ins, recognition of accomplishments, and ensuring equal access to resources and opportunities.

Employee Well-Being and Motivation

The findings of this study emphasize the importance of prioritizing employee well-being in digital leadership. Remote work environments often blur the boundaries between work and personal life, making it more difficult for employees to maintain a healthy work-life balance (Efimov et al., 2022). Remote workers are at risk of burnout, stress, and disengagement, particularly if they lack sufficient support or if their work environments are isolating (Dixit et al., 2024).

The literature has consistently pointed out that leaders in remote and hybrid settings must be proactive in addressing these well-being concerns. The study highlights that leaders who demonstrate empathy and offer flexibility in work schedules are more likely to support their employees' well-being and, consequently, enhance team performance (Beniušis, 2023). Promoting a culture of psychological safety, where employees feel comfortable discussing challenges and seeking support, is also crucial for maintaining motivation and engagement in virtual teams.

Furthermore, the study highlights the importance of creating a culture that values work-life balance and mental health. Leaders can encourage regular breaks, set clear boundaries between work and personal time, and provide resources for managing stress and mental health. Studies by Efimov et al. (2024) and Dixit et al. (2024) stress the significance of leaders in creating a supportive work environment that fosters both productivity and well-being.

Maintaining Organizational Culture in Hybrid and Remote Work Environments

The challenge of maintaining organizational culture in hybrid and remote teams is one of the most frequently discussed themes in the literature. Traditional organizational culture is often shaped through informal, in-person interactions and shared experiences. However, in remote and hybrid environments, these informal touchpoints are reduced, and maintaining a strong, unified organizational culture requires deliberate effort from leadership (Pagnozzi et al., 2024).

This study affirms that digital leaders must take proactive steps to communicate and reinforce organizational values and norms across distributed teams. Leaders must model the behaviors and values they wish to promote, ensuring that these cultural elements are embedded in digital interactions and that all employees, regardless of location, are aligned with the organization's mission and vision. One best practice highlighted in the literature is to conduct regular cultural check-ins and maintain a consistent dialogue about the organization's core values (Pagnozzi et al., 2024). Leaders can use digital platforms to create opportunities for employees to engage with these values, ensuring that even remote workers feel connected to the organizational culture.

Moreover, the study shows that promoting inclusivity and diversity is crucial in maintaining a healthy organizational culture. Leaders must create an inclusive environment that fosters collaboration among individuals with diverse perspectives and backgrounds, particularly when working in global, virtual teams (Schwehn et al., 2025). The ability to manage diversity and promote inclusivity is not only important for maintaining cultural alignment but also for driving innovation and creativity in remote teams.

A key contribution of this synthesis is the identification of systematic differences between leadership demands in hybrid and fully remote contexts differences that prior reviews have largely elided. Table 4 presents a comparative framework mapping these differences across the five challenge domains discussed above, while also noting the leadership approaches most relevant to each context.

Table 4. Comparative Framework: Leadership Demands in Hybrid vs. Fully Remote Contexts

Domain	Hybrid Context	Fully Remote Context
Primary Communication Challenge	Inequitable flows between on-site and remote members; proximity bias risk	Absence of all non-verbal cues; asynchronous coordination difficulties
Trust-Building	Mitigating proximity bias; ensuring equal visibility and recognition	Establishing rapport without any physical interaction
Cohesion	Managing 'two-tier' team dynamics; bridging co-located and distributed subgroups	Constructing all sense of community deliberately through digital channels
Culture Maintenance	Risk of cultural fragmentation between in-office and remote sub-cultures	Requires entirely digital cultural reinforcement; no informal in-person touchpoints
Key Leadership Priority	Equity and inclusion across mixed-mode teams	Psychological safety and digital community-building
Extended Leadership Theory	Adaptive leadership: responding to shifting co-located/remote balance	Transformational leadership: sustaining motivation without physical presence

Implications for Theory and Practice

The findings of this review carry meaningful implications that extend beyond a simple inventory of competencies and challenges. Theoretically, the synthesis suggests that digital leadership is best understood not as a novel construct separate from established leadership theory, but as a reconfiguration of transformational and adaptive leadership principles for technology-mediated, distributed environments; the central role of emotional intelligence across all domains of leadership effectiveness communication, trust-building, well-being, and culture positions EI as an integrative rather than merely additive competency, a distinction that invites further theoretical elaboration. For practice, the findings suggest that organizations should resist treating hybrid and remote leadership as interchangeable, as the structural conditions of hybrid work proximity bias, co-location asymmetry, and two-tier team dynamics require targeted interventions that go beyond the communication and well-being strategies sufficient for fully remote settings; leadership development programs that address EI and digital communication as

interdependent capacities, rather than separate skills, are likely to produce more coherent and transferable leadership capability, though these observations are offered as diagnostic orientations informed by this secondary synthesis, with the expectation that future empirical work will test and refine them in specific organizational contexts.

4. CONCLUSION

This systematic literature review synthesizes five years of peer-reviewed research on digital leadership in hybrid and remote work environments, offering an integrative account of the competencies required, challenges encountered, and strategies recommended across both contexts. The findings carry substantive implications for leadership theory, organizational practice, and future research.

Key Findings

Five leadership competencies are recurrently discussed across the reviewed literature: emotional intelligence, communication skills, adaptability, digital literacy, and cultural intelligence. These are not discrete attributes but interdependent capacities, particularly the relationship between EI and digital literacy, which the literature suggests functions synergistically rather than independently. Five primary challenges are identified: communication barriers, team cohesion erosion, trust-building difficulties, employee well-being threats, and organizational culture maintenance. Critically, this review finds that these challenges manifest differently in hybrid versus fully remote contexts, a distinction with direct implications for leadership strategy. In hybrid settings, proximity bias, co-location asymmetry, and two-tier team dynamics present challenges that are qualitatively distinct from those faced in fully remote environments.

Theoretical Contributions

This review makes two specific theoretical contributions. First, it positions digital leadership as an extension of transformational and adaptive leadership frameworks not a wholesale departure from them providing a bridge between established theory and the demands of distributed digital work. Second, by systematically differentiating hybrid from fully remote leadership demands, this review establishes a more granular theoretical foundation for future model-building. The identification of EI as an integrative cross-domain competency enabling communication, trust-building, well-being promotion, and cultural maintenance simultaneously offers a theoretically generative insight for future framework development.

Practical Implications

Organizations investing in digital leadership development should attend to several diagnostic considerations. Leadership programs that address EI and digital communication as interdependent not separate competencies are likely to produce more integrated capability development. Organizations operating in hybrid settings specifically should build structural interventions to address proximity bias: including remote members equitably in informal exchanges, decision-making, and performance recognition processes. Transformational leadership development, particularly the enhancement of digital communication skills as a mediating capability, appears warranted across both hybrid and remote contexts. These implications are offered as organizational diagnostics informed by secondary literature synthesis rather than prescriptive mandates derived from primary empirical research.

Future Research Directions

The following specific directions for future research emerge from this synthesis:

- (1) AI-augmented leadership: As artificial intelligence tools are increasingly integrated into team management through performance monitoring, communication facilitation, and decision support, empirical research is needed to examine how digital leaders can leverage AI ethically and effectively without compromising trust or psychological safety.
- (2) Hybrid work culture formation: Longitudinal empirical studies are needed to examine how organizational cultures evolve in hybrid settings over time, and specifically how sub-cultural divergence between co-located and remote sub-groups can be detected and mitigated.
- (3) Context-specific leadership models: Research designs that explicitly differentiate hybrid from fully remote contexts rather than treating them as equivalent will produce more actionable insights. Cross-sectional and comparative studies across sectors and organizational sizes would strengthen generalizability.
- (4) EI-digital literacy interaction: The synergistic relationship between EI and digital literacy identified in this review warrants dedicated empirical investigation to understand whether combined development of these competencies produces superior outcomes to sequential development.
- (5) Intersection with alternative leadership styles: Future research should examine how servant leadership, distributed leadership, and ambidextrous leadership interact with the digital and hybrid contexts synthesized here.

All findings in this review are derived from secondary literature synthesis. They are intended to provide a foundation for empirical investigation and organizational

reflection rather than to serve as definitive evidence of causal or universal relationships.

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