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(JISTM)**www.gaexcellence.com/jistm**LEADERSHIP COMMUNICATION IN DIGITAL AND AI-
ENABLED WORKPLACES: A SCOPING REVIEW**Norhafiza Hashim¹, Siti Hajar Mohd Hussain^{2*}, Mohd Firdaus Ruslan³, Mahazir Ismail⁴¹ Faculty of Business and Management, Universiti Teknologi MARA (UiTM) Cawangan Kedah, Malaysia norha275@uitm.edu.my <https://orcid.org/0009-0005-9711-5289>² Faculty of Business and Management, Universiti Teknologi MARA (UiTM) Cawangan Kedah, Malaysia hajarhussain@uitm.edu.my <https://orcid.org/0000-0002-0735-1212>³ Faculty of Business and Management, Universiti Teknologi MARA (UiTM) Cawangan Kedah, Malaysia firdaus438@uitm.edu.my <https://orcid.org/0009-0009-1775-9922>⁴ Faculty of Business and Management, Universiti Teknologi MARA (UiTM) Cawangan Kedah, Malaysia mahazir@uitm.edu.my <https://orcid.org/0009-0003-3601-4877>

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Abstract:

Digital and AI-supported work has changed how leaders communicate with employees, particularly in virtual, remote and hybrid settings. Although communication is widely discussed in digital leadership research, the literature uses different terms to describe what leaders need to communicate effectively. This scoping review maps leadership communication competencies and related communicative dimensions reported in digital and emerging AI-enabled workplace research. Guided by the Population-Concept-Context (PCC) framework, a Scopus search was conducted for journal articles published between 2020 and 2026 in Business, Management and Accounting. The search returned 71 records. Title and abstract screening resulted in 35 Include, 23 Uncertain and 13 Exclude records. Because the review was designed as abstract-level evidence mapping, the 23 Uncertain records were retained together with the 35 Include records, giving 58 records for analysis. Four recurring areas were identified: digital and media communication competence; relational and socio-emotional communication competence; adaptive communication competence; and communication for coordination and information exchange. The findings indicate that digital leadership communication involves more than using communication technologies. Leaders also need to make appropriate media choices, maintain relationships, adjust their communication to changing work conditions, and support information and feedback exchange. Evidence dealing specifically with AI-enabled workplaces remains limited. Emerging studies suggest that leaders may

also need to interpret and explain AI-generated information, although it is too early to determine whether this represents a distinct communication competency. The review brings together a fragmented body of research and provides an organising basis for further work on leadership communication in digital and AI-enabled workplaces.

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AI-Enabled Workplaces; Communication Competency; Digital Leadership; Leadership Communication; Scoping Review



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Introduction

Digital technologies have changed the conditions in which leadership communication takes place. Leaders now interact with employees, coordinate work, and maintain working relationships through a range of digital platforms, particularly in virtual, remote, and hybrid arrangements. In these settings, communication involves more than delivering information. Leaders must decide which medium is suitable, when communication is needed, how frequently employees should be contacted, and how feedback should be handled. These decisions become especially important when regular face-to-face interaction is limited.

Research on digital, virtual, and e-leadership frequently recognises communication as an important part of effective leadership. What is less clear is how the communication requirements of leaders should be conceptualised. Across the literature, researchers refer to communication competencies, skills, capabilities, behaviours, practices, communication effectiveness, dialogue, transparency, responsiveness, listening, sensegiving, and media-use judgement. Although these concepts overlap, they do not necessarily describe the same aspect of communication. For example, a skill refers to a learned proficiency, whereas behaviour concerns what a leader does during an interaction. Capability places greater emphasis on whether communication resources can be mobilised and adjusted when circumstances change, while competency concerns what a leader is able to do effectively within a particular work context (Ellström et al., 2022; Heubeck & Meckl, 2023; op 't Roodt et al., 2025).

The difficulty, therefore, is not simply that leadership communication has received insufficient attention. Relevant evidence is spread across several areas of digital leadership research and is described using constructs that are sometimes treated as interchangeable. This makes it difficult to determine which communication requirements recur across digital workplaces, how those

requirements have been conceptualised, and whether they operate at the level of the individual leader, the leader-follower relationship, the team, or the organisation.

The growing presence of AI in workplace decision-making adds another communication challenge for leaders. In some situations, leaders may need to make sense of AI-generated information before communicating its meaning or implications to employees. It remains unclear, however, whether such communication represents a new competency or simply adds to what leaders already need in digitally mediated work.

This review therefore maps the communication competencies and related dimensions reported in studies of digital workplaces, while also considering the emerging evidence from AI-enabled work settings.

What does existing research reveal about leadership communication competencies and related communicative dimensions in digital and AI-enabled workplaces?

To answer this question, the review examines how communication-related constructs are described, identifies recurring communication requirements, maps the theoretical and methodological characteristics of the available studies, and identifies areas requiring further investigation. The analysis did not begin with a predetermined communication competency framework. Instead, the thematic areas were developed from patterns identified in the mapped evidence.

Literature Review

Digital Leadership as a Communication Context

Digital leadership occurs in workplaces where technology is part of routine interaction between leaders and employees. Digital tools support activities such as coordinating tasks, sharing information and working together, but their use also changes the way leaders communicate. As a result, the communication demands placed on leaders extend beyond simply knowing how to use the technology.

This becomes particularly noticeable in remote, virtual and hybrid work. When leaders and employees are physically separated, everyday face-to-face interaction is reduced. Leaders therefore must think more carefully about the communication channel they use, how regularly they communicate and how feedback is given. Previous studies have examined these issues through media choice, frequency of contact, feedback and trust development. In this sense, digital media are not merely tools for sending information; they also shape how leaders maintain relationships with employees.

Leadership Communication and Communication Competency

Leadership communication serves different purposes in the workplace. Leaders use communication to give direction, share information, coordinate work, support decisions and maintain relationships with employees. Although technology has changed the way these activities take place, the interpersonal side of communication remains important. This is especially true in distributed work, where leaders have fewer opportunities to observe employees' responses or clarify issues through direct interaction.

The literature uses several terms to describe these communication requirements, and they do not always mean the same thing. Competency generally reflects what a leader can do effectively, while a skill refers to a learned proficiency. Behaviour focuses on what the leader does during an interaction, whereas practice refers to a recurring way of communicating. A strategy, in contrast, involves a more deliberate choice about the message, audience, timing or medium. Capability places greater emphasis on whether leaders can draw on and adjust their communication resources when circumstances change.

These distinctions matter in digital leadership. Having communication skills alone does not necessarily mean that a leader can use them effectively across different technologies, tasks or interaction settings. Communication competency therefore needs to be understood in relation to the context in which it is applied, rather than treated only as an individual attribute.

Conceptual and Theoretical Fragmentation

Research relevant to this review is drawn from several related areas, including digital leadership, e-leadership, virtual leadership, organisational communication and technology-mediated management. Communication is not treated in the same way across these areas. In some studies, it is discussed as a competency or behaviour, while others approach it as a relational process, a decision about media use or an organisational capability.

The level at which communication is examined also differs. Some studies concentrate on the individual leader, while others focus on leader–follower relationships, teams or organisation-level capabilities (Banks et al., 2022; Müller et al., 2024). These different perspectives may reflect different aspects of a broader communication domain rather than competing explanations. Research on virtual trust further suggests that communication needs to be considered together with the conditions surrounding an interaction, including the medium and the degree of uncertainty involved (Norman et al., 2020; Ertiö et al., 2024).

AI-enabled work makes this picture more complex. When AI contributes information or recommendations to workplace decisions, leaders may have to interpret these outputs before discussing them with employees. Abdallah and Elnazer (2026), for example, identify the communication of algorithmic outputs as part of leadership in Industry 5.0. However, the evidence is still too limited to determine whether this should be viewed as a separate communication competency or as an additional demand within existing digital leadership communication.

For this reason, the review does not impose a predefined competency framework on the literature. It first maps the terms and communication-related concepts reported in the studies before looking for patterns across them. This also helps preserve the distinction between competencies, skills, behaviours, practices, capabilities and outcomes during the synthesis.

Methodology

Scoping Review Approach

A scoping review was selected because research on leadership communication in digital workplaces is dispersed across different concepts, terminology, work settings and research designs. The intention was to map how communication is represented across this literature and

identify recurring patterns, rather than assess the effectiveness of a particular intervention or undertake a narrowly focused systematic synthesis.

The review was structured using the Population-Concept-Context (PCC) framework. The Population included leaders, managers, supervisors, team leaders, executives and other formal leadership roles. The Concept covered leadership communication competencies as well as related skills, behaviours, practices, capabilities, abilities and communicative dimensions. The Context included digitally mediated workplaces, particularly virtual, remote and hybrid work, together with emerging AI-enabled work arrangements.

PCC guided the development of the review question and was also used to inform the search strategy, eligibility criteria, data charting and synthesis. Where relevant, reporting followed the PRISMA Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018).

It is important to clarify the scope of the review. The 58 retained records were mapped using information available from titles, abstracts, keywords, bibliographic details and Scopus-indexed metadata. Full-text eligibility assessment was not conducted. The findings therefore represent abstract-level evidence mapping within the scoping review rather than a conventional full-text systematic review.

Search Strategy

The literature search was conducted in Scopus. The search terms reflected three main elements of the review question: digital leadership, communication, and workplace or organisational settings. Alternative terms and spelling variations were included to account for the different terminology used across the literature.

Titles, abstracts and keywords were searched through the TITLE-ABS-KEY field. Boolean operators, phrases, wildcards and spelling variants were incorporated into the search. The exact search string was as follows:

TITLE-ABS-KEY (("digital leadership" OR "digital leader*" OR "e-leadership" OR "e-leader*" OR "electronic leadership" OR "virtual leadership" OR "virtual leader*" OR "technology-mediated leadership" OR "technology enabled leadership" OR "technology-enabled leadership") AND (communication OR communicat* OR "leadership communication" OR "leader communication" OR "managerial communication" OR "communication competenc*" OR "communicative competenc*" OR "communication skill*" OR "communication capabilit*" OR "communication behavio?r*" OR "communication practice*") AND (workplace* OR organi?ation* OR employee* OR workforce OR "work environment*" OR team*)) AND (LIMIT-TO (SUBJAREA, "BUSI")) AND (LIMIT-TO (DOCTYPE, "ar")) AND PUBYEAR > 2019 AND PUBYEAR < 2027

The search was restricted to journal articles in Business, Management and Accounting published between 2020 and 2026. Language was not restricted during the database search, although English-language publication was later applied as an eligibility criterion. The final search, conducted on 14 August 2026, produced 71 records.

The search was kept broad deliberately. Terms such as empathy, listening, trust, adaptability and emotional intelligence were not included as required search terms because doing so might have shaped the communication attributes retrieved. Instead, these concepts were allowed to emerge during the subsequent mapping and synthesis.

Eligibility Criteria

Studies were considered relevant when they examined digital leadership or related forms of e-leadership, virtual leadership, electronic leadership or technology-mediated leadership in a workplace or organisational setting, with communication forming a meaningful part of the study.

Communication was interpreted broadly during screening because the literature does not use a consistent term for it. Studies could therefore address communication competencies, skills, behaviours, practices, capabilities, strategies, abilities, communication effectiveness, communication quality or other related dimensions. A study was not excluded simply because it did not use the specific term communication competency.

Records were excluded when there was no meaningful digital or technology-mediated leadership component, when communication or technology was discussed without a substantive leadership focus, or when the context was outside the workplace or organisation. Records in which digital leadership and communication appeared only incidentally were also excluded. Both empirical and conceptual studies were considered, with eligible publications limited to scholarly works written in English.

Study Selection and Screening

The titles and abstracts of all 71 records retrieved from Scopus were screened. Three aspects were considered during this process: whether the study addressed digital or technology-mediated leadership, whether communication was a meaningful component, and whether the research was situated within a workplace or organisational context.

Each record was classified as Include, Uncertain or Exclude. Records were marked Include when the title and abstract provided sufficient evidence of relevance. Exclude was used when the available information clearly fell outside the eligibility criteria. The Uncertain category was used when a record appeared relevant, but the abstract did not provide enough information for a confident decision.

Screening resulted in 35 Include, 23 Uncertain and 13 Exclude records. The 13 Exclude records were removed. Because the review was limited to abstract-level mapping, excluding all 23 Uncertain records without examining their full texts could have removed potentially relevant evidence. They were therefore retained together with the 35 Include records, giving a total of 58 records for data charting and synthesis.

The 58 records should therefore be understood as records retained for abstract-level evidence mapping, rather than 58 studies confirmed as eligible through full-text assessment.

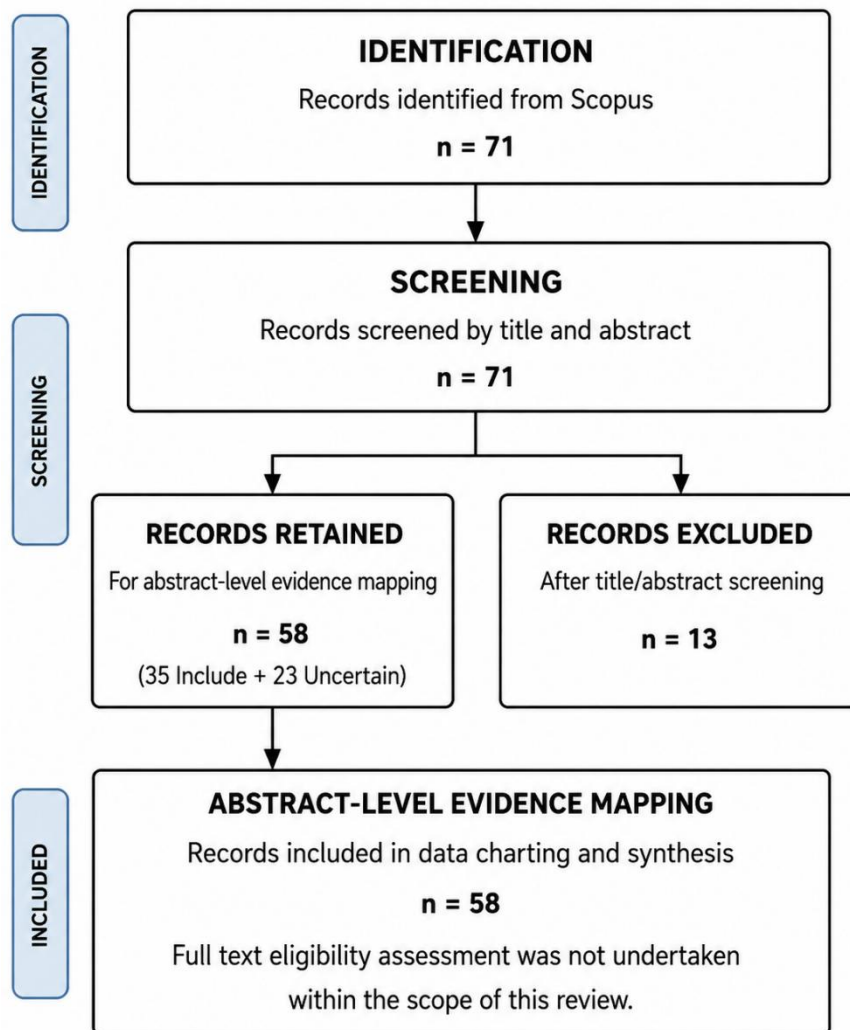


Figure 1. Study Selection Flow Diagram.

Data Charting

A charting framework was prepared based on the review question. Information was recorded on the author and publication year, country or region, workplace or organisational setting, research focus, theoretical or conceptual perspective, methodology, population or sample, communication-related concepts, key findings, and reported gaps or directions for future research.

Only information available in the title, abstract, keywords, bibliographic record and indexed metadata was charted. Where information was not available, it was recorded as unavailable rather than inferred. The original terminology used by each study was also retained. For example, a concept described as a skill, behaviour, practice or capability was not automatically treated as a competency.

Data Analysis and Synthesis

The analysis began by mapping the general characteristics of the retained records, including publication patterns, geographical and workplace settings, research methods, study populations, theoretical perspectives and communication-related concepts.

Communication-related material was then examined inductively. During the initial coding, the terminology used in the individual records was retained as closely as possible. Competencies, skills, behaviours, practices, capabilities, communication quality and communication effectiveness were therefore not combined at this stage. The coded material was then compared across records to identify communication requirements that appeared repeatedly.

From this process, four provisional themes were identified: digital and media communication competence; relational and socio-emotional communication competence; adaptive communication competence; and communication for coordination and information exchange. These themes were developed from patterns in the mapped evidence rather than taken from an existing competency framework. Differences between studies were considered in relation to their workplace setting, level of analysis, theoretical perspective, technology, work arrangement and communication purpose.

Since the review is based on abstract-level evidence mapping, the four themes are used as provisional organising themes rather than a validated leadership communication competency framework.

Findings

Characteristics of the Evidence Base

The 58 records retained for mapping were published between 2020 and 2026. Much of this literature focused on virtual, remote and hybrid work, including virtual teams, remote leadership and digitally mediated leader–employee relationships (Darics, 2020; Kashive et al., 2022; Krehl & Büttgen, 2022; Mutha & Srivastava, 2023; Norman et al., 2020; Wang et al., 2023; Yozi & Mbokota, 2024). Studies focusing specifically on AI-enabled workplaces were less common, although more recent work suggests growing interest in this area (Abdallah & Elnazer, 2026; Ingaldi & Ulewicz, 2025).

The records covered different geographical and organisational settings. Where the information was reported in the abstracts, the studies included contexts in Australia, Germany, India, Latvia, Lithuania, Saudi Arabia, South Africa, Sweden and the Middle East. Organisational settings ranged from higher education and public administration to SMEs, banking, IT and IT-enabled services, telecommunications and manufacturing. Where location or contextual information was not available, it was recorded as unavailable rather than inferred.

The studies also varied in their research methods. Qualitative approaches were used in several studies, including Guzar and Bianchi-Laubsch (2024), Toleikienė et al. (2020, 2024), Norman et al. (2020), Yozi and Mbokota (2024), and Krehl and Büttgen (2022). Other studies used quantitative methods (Gupta et al., 2023; Kashive et al., 2022; Widyaputri & Sary, 2022), while Mutha and Srivastava (2023) adopted mixed methods and Norman et al. (2025) used an

experimental design. The mapped evidence also included longitudinal, review-based and scale-development research.

How Communication Was Conceptualised

One noticeable feature of the mapped studies was the variety of terms used to describe communication. Kempner (2024), for example, treated e-communication as an e-leadership competency, while Chaudhary et al. (2022) referred to e-communication skills. Sahlin et al. (2025) used the term communication capabilities, and Shahzad (2024) included effective communication among digital leadership competencies. Other studies discussed communication quality, communication effectiveness or digital leadership communication (Ilter et al., 2023; Kashive et al., 2022; Mutha & Srivastava, 2023).

Not all studies framed communication in terms of competency. Some focused instead on how leaders use communication media. Norman et al. (2020) examined media savvy and the selection of a medium that fits the message. Tirrel et al. (2026) referred to competent use of virtual media, while Wang et al. (2023) found differences in media choice according to task requirements. Krehl and Büttgen (2022) similarly examined how digital tools were matched with leadership activities and messages.

For this review, these differences were retained rather than collapsed into a single category. A skill, competency, capability, behaviour or practice was therefore not treated as equivalent simply because it involved communication. The same caution was applied to communication quality and communication outcomes.

Four Provisional Thematic Areas

Comparison across the mapped records revealed four recurring areas of leadership communication. These were digital and media communication competence, relational and socio-emotional communication competence, adaptive communication competence, and communication for coordination and information exchange. As these themes emerged from abstract-level evidence, they are used here to organise the findings rather than to propose a validated competency model.

Digital and Media Communication Competence

The first theme relates to how leaders choose and use digital media when communicating. Darics (2020), for example, examined leadership through linguistic and semiotic resources in text-based instant messaging. Norman et al. (2020) focused on media savvy and the choice of communication medium, while Wang et al. (2023) showed that leaders used different media depending on task requirements. Ilter et al. (2023) also highlighted media selection, regular contact and feedback in digitally mediated manager–employee communication.

Similar concerns appeared in studies that approached communication from a competency perspective. Tirrel et al. (2026) included the competent use of virtual media as part of virtual leadership, while op ’t Roodt et al. (2025) placed technology and media selection within leader digital competence. Taken together, these studies suggest that digital communication involves more than being able to operate a platform. Leaders also need to judge which medium is appropriate for a particular message or communication task.

Relational and Socio-Emotional Communication Competence

The second theme concerns the relational side of communication in digitally mediated work. Trust was particularly visible in this group of studies. Norman et al. (2020) considered media use in relation to follower trust, while Kashive et al. (2022) linked communication quality with trust in virtual teams. Mutha and Srivastava (2023) similarly examined communication effectiveness together with trust and employee engagement in geographically dispersed teams.

Other studies pointed to a wider set of interpersonal qualities. Yozi and Mbokota (2024) identified listening, empathy, authenticity, humility and transparency in hybrid leadership. Ertiö et al. (2024) connected emotional intelligence, communication, trust and transparency with employee technostress. A different perspective was provided by Kulshreshtha and Sharma (2021), who reported that heavy reliance on ICT could contribute to misunderstanding and weaker empathy and trust. Together, these findings show that technology may change the setting in which communication occurs, but it does not remove the relational demands placed on leaders.

Adaptive Communication Competence

The third theme concerns the ability of leaders to adjust their communication when work conditions change. This appeared in studies dealing with virtual, remote and hybrid settings, where communication practices often had to be modified according to the task, technology and working arrangement. Wang et al. (2023), for instance, showed that media choice differed across task situations, while Krehl and Büttgen (2022) described how leaders matched digital tools with leadership activities.

Adaptability was also reflected in broader discussions of digital leadership. Leaders were expected to respond to changing communication conditions rather than rely on the same approach across situations. In the mapped evidence, adaptive communication therefore appeared less as a single communication technique and more as the ability to adjust how, when and through which medium communication takes place.

Communication for Coordination and Information Exchange

The fourth theme relates to the practical role of communication in keeping work organised and information moving between leaders and employees. Across the mapped studies, communication was associated with activities such as giving instructions, clarifying roles, providing feedback, gathering and sharing information, monitoring work and coordinating tasks.

These functions were particularly important in virtual and geographically dispersed teams, where employees had fewer opportunities for spontaneous face-to-face interaction. Studies including Kashive et al. (2022) and Mutha and Srivastava (2023) showed how communication quality and effectiveness related to the functioning of virtual teams. From this perspective, communication is not only relational; it also provides the practical link through which distributed work is coordinated and employees remain informed.

The four themes overlap in practice. Media choice may affect trust, adaptation may be required when coordination problems arise, and relational communication may influence how

employees respond to feedback or information. The themes are therefore best understood as related areas within leadership communication rather than as four independent competencies. Only a small part of the mapped evidence dealt directly with communication in AI-enabled work. Ingaldi and Ulewicz (2025) considered communication in leadership environments affected by AI, while Abdallah and Elnazer (2026) identified the interpretation and communication of algorithmic outputs as relevant to leadership in Industry 5.0.

At this stage, these records do not provide enough evidence to establish AI-related communication as a separate competency domain. What they do show is an emerging communication requirement associated with explaining and interpreting information generated through algorithmic or AI-supported processes.

Areas of Variation and Evidence Gaps

The mapped studies did not describe technology as having the same effect on communication in every setting. Some reported that digital tools supported collaboration, information exchange, and coordination (Wang et al., 2023; Widyaputri & Sary, 2022). Others identified difficulties associated with technology-mediated interaction. Kulshreshtha and Sharma (2021), for example, reported possible misunderstanding and reductions in empathy and trust, while Ilter et al. (2023) identified reduced contact, fewer emotional cues, and limited feedback as barriers.

Media choice also depended on the conditions surrounding the interaction. Norman et al. (2020), Wang et al. (2023), and Ilter et al. (2023) pointed to the importance of selecting suitable communication media. Norman et al. (2025), however, showed that media choice alone did not determine trust because situational uncertainty also played a role. The evidence therefore does not support a simple conclusion that one medium or communication approach is consistently preferable across digital work settings.

The abstracts also identified several directions where further research is needed. These included negative aspects of e-communication, leaders' media skills, relationships among e-leadership, ICT use and communication channels, and continuing fragmentation in technology-and-leadership research. Other gaps concerned hybrid-work leadership from managerial perspectives, public-sector outcomes, contexts beyond the IT sector, cultural influences, and longer-term investigation (Aggarwal & Kumar, 2022; Chaudhary et al., 2022; Kashive et al., 2022; Kulshreshtha & Sharma, 2021; Norman et al., 2020; Sahlin et al., 2025; Tirrel et al., 2026; Toleikienė et al., 2020; Yozi & Mbokota, 2024).

Discussion

Taken as a whole, the mapped literature does not support a narrow view of leadership communication as simply the ability to communicate through digital tools. The communication demands reported across the studies were broader. Leaders were expected to make choices about communication media, maintain relationships when interaction occurred at a distance, adjust their communication as work conditions changed, and keep information and feedback moving across distributed teams. The four themes identified in this review bring these recurring requirements together.

Importantly, the themes should be understood as a way of organising a fragmented literature rather than as a fixed set of leadership competencies. The studies themselves use different terminology and examine communication from different perspectives. Krehl and Büttgen (2022) and Wang et al. (2023), for example, show that media use and communication practices vary with leadership activities and task requirements. This makes it difficult to separate communication competence from the conditions in which communication is used.

Conceptual Fragmentation and Construct Differentiation

One issue became particularly apparent during the mapping process: studies that appear to discuss similar communication requirements do not always examine the same construct. Competency, skill, capability, behaviour, and practice are sometimes positioned close to one another in the literature but treating them as equivalent would obscure meaningful differences. A competency concerns what a leader can do effectively, whereas a skill refers more specifically to a learned proficiency. Behaviour concerns what the leader does in an interaction. Practices capture recurring ways of communicating, while capability places greater emphasis on mobilising and adapting communication resources when circumstances change. Communication effectiveness and communication quality create a further distinction because they may describe the character or outcome of communication rather than the leader's underlying ability.

This distinction has implications for how leadership communication is theorised and measured. A study examining communication behaviour is not necessarily measuring the same phenomenon as one assessing communication competency, even when both use similar communication indicators. Part of the apparent fragmentation in the literature may therefore arise from differences in what is being conceptualised and at what level, rather than from conflicting evidence about leadership communication itself.

More Than Digital Proficiency

The mapped studies also make it difficult to reduce digital leadership communication to technological proficiency. Knowing how to operate a platform or select a communication channel matter, but it addresses only part of the communication task. Leaders still must establish trust, listen, provide feedback, maintain interpersonal connection, and respond to employees who may have fewer opportunities for informal face-to-face interaction.

This relational dimension can be seen in different parts of the evidence. Mutha and Srivastava (2023) considered communication effectiveness alongside trust and employee engagement in geographically dispersed teams, while Ertiö et al. (2024) connected communication with emotional intelligence, trust, and transparency. Kulshreshtha and Sharma (2021) offered a useful counterpoint by showing that reliance on ICT may also be associated with misunderstanding and weaker empathy and trust. Digital technologies can therefore enable communication without necessarily guaranteeing relationally effective communication.

This is an important distinction for the interpretation of the first two themes. Digital and media communication competence concerns how leaders navigate technologically mediated interaction, whereas relational and socio-emotional communication competence concerns what must be sustained within those interactions. In practice the two may operate together, but conceptually they capture different communication demands.

Communication Changes with the Situation

The evidence also indicates that leadership communication cannot be separated easily from context. A communication approach that works for one task or work arrangement may be less appropriate for another. Several studies described leaders changing their media choices, contact patterns, or interpersonal approaches in response to the work situation.

This gives adaptive communication a somewhat different meaning from simply possessing a collection of communication skills. The issue is not only whether a leader has a particular skill, but whether the leader can judge when it is needed and modify its use when circumstances change. In remote and hybrid settings, such adjustment may involve the communication medium, frequency of contact, type of feedback, or interpersonal approach.

The finding also helps explain why the mapped studies do not always reach identical conclusions about communication media. Norman et al. (2025), for example, showed that media choice alone did not determine trust because situational uncertainty also mattered. Rather than looking for one universally effective digital communication approach, future work may therefore need to examine the conditions under which communication choices become effective.

What AI May Change

The AI-related records introduce a somewhat different communication problem. Much of the digital leadership literature concerns leaders communicating through technology. AI-enabled work may increasingly require leaders to communicate about information produced by technology.

This distinction is visible in the small AI-related strand of the mapped evidence. Abdallah and Elnazer (2026) identified interpretation and communication of algorithmic outputs as relevant to Industry 5.0 leadership, while Ingaldi and Ulewicz (2025) considered communication in leadership environments affected by AI. In practical terms, a leader may need not only to receive an AI-supported output but also to interpret what it means, explain it to employees, and respond when employees question how that information is being used.

The evidence is still too limited to label this a separate AI communication competency. A more cautious interpretation is that AI is introducing additional communication demands whose relationship with established digital leadership competencies has yet to be determined. This distinction deserves empirical attention as AI becomes more embedded in workplace information and decision processes.

Theoretical and Methodological Implications

For leadership communication theory, the review points to the need for greater precision about both the construct and the level of analysis. Communication can be in the individual leader, observed in leader behaviour, experienced within a leader-follower relationship, enacted as a team process, or considered as an organisational capability. These perspectives are connected, but they are not theoretically identical.

This matters when constructs are operationalised. A measure designed to assess what leaders believe they can do cannot automatically be assumed to capture their actual communication behaviour, the quality of a leader-employee relationship, or the outcomes of communication. Future studies would benefit from making the connection among construct definition, theoretical level, and measurement explicit (Ellström et al., 2022; Norman et al., 2025; op 't Roodt et al., 2025).

The four provisional themes identified here could provide an initial structure for that work. They indicate where recurring communication requirements appear in the literature without assuming that each theme represents a single measurable construct. Empirical research is still needed to determine whether these areas remain distinct, overlap, or operate differently across digital work contexts.

Practical Implications

For organisations, the mapped evidence suggests that preparing leaders for digital work requires more than training them to use communication platforms. Leaders may also need opportunities to develop judgement about media choice, approaches to feedback and listening, relationship maintenance across distance, and the ability to adjust communication when tasks or work arrangements change.

AI-supported work may add another practical consideration. Where leaders rely on AI-generated information, employees may need an explanation of what the information means and how it relates to a workplace decision. Providing space for questions and clarification may therefore become part of the leader's communication role. Given the small AI-focused evidence base in this review, however, this should be regarded as an emerging development need rather than an established AI leadership competency.

Research Implications and Future Directions

The most immediate research need is conceptual clarity. Future studies should specify whether they are examining communication as a competency, skill, capability, behaviour, practice, process, or outcome. Clearer distinctions would make it easier to compare findings and to determine whether apparently similar constructs belong within a broader leadership communication domain or represent different phenomena (Aggarwal & Kumar, 2022; Shahzad, 2024).

Context should also become a more deliberate part of future research. Requirements identified in virtual teams, hybrid work, public-sector organisations, and other digitally mediated workplaces may not operate in the same way. Comparative studies could examine which communication requirements remain relatively stable across settings and which are shaped by technologies, tasks, organisational conditions, or cultures (Toleikienė et al., 2020; Yozi & Mbokota, 2024). Longitudinal work would be particularly useful for examining whether these requirements change as digital working arrangements mature (Sahlin et al., 2025).

AI-enabled leadership presents a further research opportunity. Rather than asking only whether leaders need AI communication skills, future studies could examine more specific activities: How do leaders explain AI-generated information? How do they communicate decisions that have been informed by algorithms? What happens when employees question an AI-supported

recommendation? How is human judgement communicated when AI is involved? These questions would provide a stronger empirical basis for deciding whether AI-related communication extends existing digital leadership competencies or requires additional conceptualisation.

Conclusion

This scoping review mapped how leadership communication has been conceptualised across digital and emerging AI-enabled workplace research. The 58 records retained for abstract-level evidence mapping pointed to four recurring areas: digital and media communication competence; relational and socio-emotional communication competence; adaptive communication competence; and communication for coordination and information exchange. These themes show that communication in digital leadership involves more than using technology to deliver messages. Leaders also make choices about communication media, maintain relationships across distance, adjust their communication as working conditions change, and support the information exchange needed to coordinate work.

An equally important finding concerns the language used to describe communication. Across the literature, competency, skill, capability, behaviour, practice, process, and communication outcome are not consistently distinguished. Treating these terms as interchangeable risks obscuring what a study is examining. The contribution of this review is therefore not the proposal of a new competency model, but the organisation of a fragmented literature and the clarification of communication constructs that future studies can examine more precisely.

The AI-focused evidence remains comparatively small. Existing studies indicate that leaders may increasingly have to interpret and explain AI-generated information and algorithmic outputs, but there is not yet enough evidence to define this as a separate leadership communication competency. Whether these demands extend existing digital communication competencies or require additional conceptualisation remains an empirical question.

These conclusions should be considered within the review's boundaries. The search was limited to Scopus, the Business, Management and Accounting subject area, and journal articles published from 2020 to 2026. English-language publication was applied at the eligibility stage. More importantly, the review mapped evidence from titles, abstracts, keywords, bibliographic information, and indexed metadata rather than conducting full-text eligibility assessment. The four themes should therefore be treated as provisional organising categories. Future work using multiple databases, full-text evidence, and empirical investigation across digital, virtual, hybrid, and AI-enabled workplaces could test and refine the patterns identified here.

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