REVIEW OF RESEARCH: THE IMPACT OF MODERN TECHNOLOGIES AND ARTIFICIAL INTELLIGENCE ON INTERNAL COMMUNICATION IN THE DIGITAL WORKPLACE

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Abstract

The rapid advancement of information and communication technologies and the growing integration of artificial intelligence (AI) have fundamentally transformed the nature of internal communication within organizations. This paper presents a systematic review of contemporary research exploring the impact of modern technologies and AI on internal communication in the context of the digital workplace. The study follows the PRISMA methodology to identify, analyze, and synthesize 55 relevant scientific sources indexed in scientific databases. The findings were categorized into four main research areas: conceptualization and structural frameworks of the digital workplace; digital internal communication and tools; automation, AI, and their impact on employees; and leadership, organizational culture, and trust. Results indicate that internal communication is evolving from a transactional to a strategic and integrative organizational function that links technology, culture, and human capital. While the adoption of AI improves efficiency, it also raises challenges related to trust, interpersonal relationships, and the psychological well-being of employees. Leadership and organizational culture play a critical role in fostering digital competencies, engagement, and digital trust necessary for effective communication in digital environments. The review highlights the need for further research on the socio-technical and ethical dimensions of AI adoption, focusing on the long-term effects of automation on communication dynamics and organizational sustainability.

Keywords: Digital Workplace, Internal Communication, Artificial Intelligence, Digital Transformation, Socio-technical Systems, Organizational Culture

Introduction

The rapid technological progress of recent decades has fundamentally transformed the nature of the working environment and the way organizations communicate and collaborate. The digitalization of business processes and the expansion of information and communication technologies (ICT) have led to the emergence of the digital workplace, which integrates technological infrastructure, organizational processes, and human resources into a unified system. This shift brings new opportunities for more efficient communication, knowledge sharing, and flexible work organization, but also new challenges related to team fragmentation, technostress, and the transformation of organizational culture. In recent years, particular attention has been paid to the influence of artificial intelligence (AI), which increasingly affects internal communication processes and the dynamics of interactions within organizations.

The aim of this paper is to analyze, through a systematic literature review, how modern technologies and AI are reshaping internal communication in the digital workplace and to identify key trends, challenges, and implications of this development.

Internal Communication at the Digital Workplace

Internal communication is a part of the management process through which information is shared, collected, and distributed to ensure employee understanding of the organization's goals and objectives (Lemon, 2020).

The main goal of corporate communication is to connect the organization internally (i.e., among employees) and externally (to the surrounding community) through information and relationships. In everyday work activities, the main goal is broken down into specific objectives, which are divided according to processes, groups of affected employees, required results, and time constraints. This is achieved through corporate communication–its forms, methods, and rules (Evangelu, 2013).

The work environment in which employees perform their daily tasks has undergone rapid development over the past thirty years, resulting in fundamental changes in organizational structures and the ways tasks are performed. It is now the norm for employees to work in multiple locations, at different times, and on multiple devices, with the workforce no longer confined to a single office environment (Elcom, 2021).

These changes have led to specialization across sectors, accompanied by a shift in approaches to work and the adoption of new digital tools emerging from the fast evolution of ICT.

ICT has also contributed to the globalization of business and the ability of employees to communicate in real time, regardless of location. Platforms such as Microsoft Teams, Outlook, or Trello have facilitated the shift of communication into online spaces, leading to the emergence of the term digital workplace–an integrated work environment based on digital technologies that enables employees to communicate, collaborate, and perform their duties from anywhere (Dery *et al.*, 2017).

Modern ICTs thus significantly reshape the workplace and alter how people collaborate and communicate (Majchrzak *et al.*, 2016). Digital workplace transformation is a multi-step process of transition from the traditional workplace, usually considered a physically limited space and a set of correlated tasks, to the digital workplace, which is more flexible regarding place and time of work and supported through adequate strategic and technological background (Micic, 2022).

The digitalization of workplaces brings organizations greater flexibility, efficiency, and responsiveness to market changes (Vial, 2019). At the same time, it introduces new challenges, such as digital team fragmentation, a decline in informal communication, and growing demands on employees' digital competencies (Messenger, 2019; Schwab, 2016). Although digital tools facilitate fast and effective communication, they also generate new forms of information overload, distraction, and so-called technostress (Tarafdar *et al.*, 2019).

The Impact of Artificial Intelligence on Internal Communication

The development of communication technologies is inseparably linked to the rapid progress of artificial intelligence (AI). Its influence can be observed particularly in internal and interpersonal communication, as organizations introduce AI-based tools such as chatbots, email sorting systems, and meeting transcription services. AI is becoming an integral part of internal communication and information management in organizations (Davenport and Ronanki, 2018). Typical examples include AI-powered helpdesk chatbots and analytical systems for performance monitoring (Huang and Rust, 2021).

The main benefits of AI include faster processes, reduced administrative workload, and 24/7 support availability. Examples widely applicable across organizations include automatic email classification and intelligent transcription and summarization of meetings.

However, the impact of AI tools on interpersonal communication remains insufficiently explored. Researchers warn of potential risks, such as the loss of face-to-face interaction between employees and an excessive level of automation. While digital tools and AI enhance efficiency and accessibility, they can also suppress nonverbal nuances crucial for building trust and mutual understanding (Baym, 2015). The absence of emotional cues, such as facial expressions or gestures, may lead to misunderstandings and misinterpretations of intent, increasing the potential for conflict (Derks, 2013). Identifying such issues arising from the implementation of AI tools represents one of the main objectives of this research.

Review Method

Given the fast adoption of AI in corporate strategy and the presence of contradictory findings about its influence on internal and interpersonal communication, a systematic analysis of the available academic literature was necessary. To ensure a comprehensive overview of how modern technologies and AI affect internal communication, the PRISMA methodology (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) was applied.

From an initial dataset of 230 potentially relevant publications (Scopus n = 198, Web of Science n = 32), a refined selection was conducted to ensure a high-quality foundation for synthesis. Search keywords included:

- ("artificial intelligence" OR "AI") AND ("internal communication" OR "organizational communication") AND ("digital workplace" OR "virtual workplace" OR "digital workplace tools" OR "collaboration platform" OR "intranet" OR "digital workspace").

After screening for duplicates, non-English texts, and unavailable materials, 55 relevant articles were retained for analysis.

Results and Discussion

The analysis identified 55 relevant sources, which were classified into four main categories and eleven subcategories, as summarized in Tab. I.
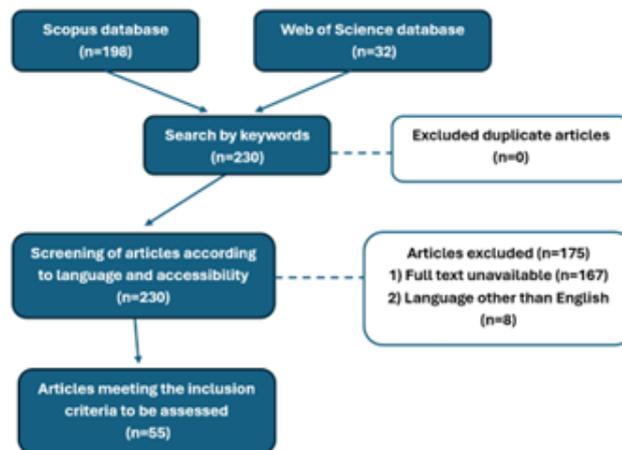
1: Research flow (2025)
Source: Authors of paper

I: Summary of Research Areas (2025)

Category	Subcategory	Nuber of Sources
Conceptualization and Structural Frameworks	Definition and Demensions of the Digital Workplace	7
	Historical Evolution of Technologies	3
	Digitalization and Organizational Transformation (DT/OT)	6
Digital Internal Communication	DIC as a Socio-Technical System	5
	Tools and Comparison (Collaboration Platforms)	6
	Social Norms and Digital Etiquette	3
Automation and Employee Impact	Implementation and Application of AI	6
	Psychological Consequences and AI Anxiety	4
	Skills and Talent Management (Upskilling/Reskilling)	3
Leadership, Culture, and Trust	Corporate Culture and Values	4
	Trust, Engagement, and Organizational Citizenship Behavior (OCB)	7

Source: Authors of paper

The following text provides a detailed analysis of the key thematic categories identified during the systematic research and data analysis. Specific subcategories and characterizing terms are included within these main categories.

Conceptualization and Structural Frameworks of the Digital Workplace

The scientific community agrees that the digital workplace represents more than a set of technologies – it is an integrated system coordinating technology, processes, and people. Empirical research defines three essential dimensions: organizational strategy and design (culture change), people and work (knowledge work), and technological platforms (independent of location). Despite these insights, the literature still lacks a unified consensus on the definition of the digital workplace.

Historical analyses show that the digital workplace evolved through three generations: from Home Office (stationary ICT) to Mobile Office (work in intermediate spaces) and finally to Virtual Office (ubiquitous Internet access). Digitalization is described as a radical and integrative process redefining value propositions, whose success often depends on adequate organizational culture and resources.

Digital Internal Communication (DIC) and Channels

DIC is positioned at the intersection of digitalization and internal communication. It is examined through a socio-technical lens encompassing intrapersonal, interpersonal, and organizational levels. Research emphasizes that communication tools such as Slack enable coordination by feedback and knowledge exchange, while corporate social networks (ESN) enhance collaboration and innovation. Yet, digital norms and expectations (e.g., constant availability, rapid response) vary across contexts and can reshape traditional communication etiquette.

AI, Automation, and Employee Impact

AI integration within organizations accelerates processes and improves efficiency, yet it also transforms employee skills and well-being. Studies highlight growing attention to AI anxiety, defined as anticipatory fears of automation and loss of autonomy. Parallel to this, upskilling and reskilling initiatives emerge as essential strategies for workforce adaptation.

Leadership, Culture, and Trust

Leadership and organizational culture play a decisive role in managing digital transformation. Digital trust–both in technologies and among individuals–conditions effective knowledge sharing and engagement. Leadership characterized by digital openness, ethical awareness, and support for competence development fosters adaptability and organizational cohesion.

Conclusion

The reviewed literature indicates that the digital workplace constitutes a continuously evolving socio-technical system in which technological innovation, organizational structure, and human factors are deeply interlinked. Modern technologies and AI profoundly reshape how internal communication, collaboration, and knowledge management occur within organizations. In the context of digital transformation, internal communication increasingly shifts from a transactional to a strategic and integrative function that connects processes, culture, and human capital.

While the integration of AI brings measurable benefits in terms of efficiency and automation, it simultaneously raises new challenges related to trust, interpersonal relations, and psychological well-being in digital environments. Insufficient consideration of the social dimension may weaken the quality of interaction, knowledge exchange, and organizational cohesion.

Leadership and corporate culture are key to supporting adaptation, fostering digital competencies, engagement, and digital trust. Effective digital leadership is characterized by openness, modeling appropriate communication behavior, and maintaining a balance between technological and human aspects of interaction.

In conclusion, the impact of modern technologies and AI on internal communication cannot be assessed in isolation. Their effects depend on the level of organizational readiness, competence maturity, and cultural adaptation. Further research should address the long-term interaction between automation and digital transformation on the one hand, and communication dynamics on the other, which are closely related to trust and the sustainability of interpersonal relationships in the digital workplace.

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