

THE SOCIOLOGY OF MANAGERIAL COMMUNICATION IN THE ERA OF ARTIFICIAL INTELLIGENCE

Liliana IOSIF¹

Abstract: *Managerial communication has undergone concurrent evolution with organizational theories, starting from the twentieth century. Technological progress, evidenced by the emergence of computers and the expansion of networks, has diversified communication methods in the digital era. Subsequent research has focused on sociological theories such as the classical management theory by Fayol and Weber, the Human Relations Theory, and McGregor's X and Y theory. Currently, Artificial Intelligence (AI) fundamentally alters managerial communication, bringing increased efficiency, predictive analytics, and automation. A study at MASPEX Romania highlights the positive impact of AI on reporting and collaboration processes. However, ethical dilemmas arise, including those related to privacy and social impact, necessitating regulation and heightened attention. The objective of this study is to investigate the impact and implications of Artificial Intelligence in the context of managerial communication in organizations.*

Keywords: *managerial communication, organizational theories, artificial intelligence (AI), organizational changes, ethical dilemmas*

1. Introduction

Currently, the context of communication in management is complex and dynamic, largely influenced by technological advancements, cultural shifts, and the increasingly demanding requirements of the globalized business environment. In an expanding digital era where information flows rapidly and is readily accessible, efficient communication management is essential for organizational success.

With the transformations brought about by the virtual environment, managers face new challenges in adapting and implementing communication strategies. The use of online tools and collaboration platforms becomes crucial for maintaining effective communication among team members, regardless of geographic location. Additionally, information management and prompt decision-making are fundamental aspects in a context where the pace of change is accelerated.

¹ Transilvania University of Braşov, liliana.iosif@unitbv.ro

Moreover, the importance of communication in building a cohesive and performance-oriented organizational culture becomes increasingly evident. Managers need to be not only efficient communicators but also attentive listeners, capable of encouraging dialogue and managing constructive conflict within the team. In this way, an environment conducive to innovation and continuous adaptation is created.

Furthermore, effective communication in management represents one of the most important success factors for organizations. Moreover, organizations with well-established communication strategies in management have a significant competitive advantage over those that neglect the importance of communication in the workplace. However, the way managers communicate with their teams has changed significantly. Managers now rely on online communication tools and must learn how to leverage technology to empower their employees (Hailo, 2022).

Anticipating future developments in the Sociology of Managerial Communication places Peter Drucker in a pioneering position. In his work "Management Challenges for the 21st Century" (Drucker, 1999), he investigates significant changes in the evolution of managerial communication in the context of the 21st century, highlighting the importance of adaptability. Another relevant contribution comes from Henry Mintzberg, who, in his work „Managing the Myths of Health Care" (Mintzberg, 2017), offers a critical perspective on the evolution of management, highlighting major changes and current challenges of communication in this field. Regarding the technological impact on the sociology of managerial communication, Sherry Turkle's work "Alone Together: Why We Expect More from Technology and Less from Each Other" (Turkle, 2011) provides insight into how technology, including artificial intelligence, will influence human relationships and, implicitly, communication in a managerial context. Finally, the study by researchers Erik Brynjolfsson and Andrew McAfee, titled "The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies" (Brynjolfsson and Andrew McAfee, 2014), examines how technological advancements, including artificial intelligence, transform communication and management in the business environment, highlighting associated challenges and opportunities.

2. Theoretical Foundations

Managerial communication made its presence felt in a more structured manner in the first half of the 20th century, with the development of management theory and organizational concepts (Fayol, 1916). The initial approaches to communication within organizations were linked to efficient human resource management and the need to clearly convey objectives and tasks to employees (Barnard, 1938). As organizations became more complex, with hierarchical structures and specialized functions, managerial communication evolved to address these changes. In the 1950s and 1960s, theories such as those of Douglas McGregor (McGregor, 1960) and Abraham Maslow (McGregor, 1960) brought greater attention to human factors within organizations, influencing how managers communicated and interacted with employees.

An important contribution to the evolution of managerial communication came from information technology, especially with the emergence of computers and

communication networks. In the digital era, managerial communication has diversified and accelerated, with tools such as email, video conferencing, online collaboration platforms, and corporate social networks readily available (MacKenzie and Wajcman, 1985).

In light of the complexity of organizations and constant changes in the business environment, the study of managerial communication has significantly evolved. This evolution has been guided by various sociological theories that have influenced the understanding and practices in the field of communication within organizations. Below, we will briefly explore some of the most significant theories and contributions, highlighting the perspectives that have shaped the discussion on managerial communication.

In the early 20th century, Henri Fayol and Max Weber developed the classical management theory (Fayol, 1916 and Weber, 1922). This perspective emphasized the hierarchical structure of organizations and essential managerial functions. Fayol, in his work *“Administration Industrially et Générale”* (1916), focused on principles such as division of labor, authority, and discipline, thus laying the foundation for modern management.

In the 1930s, the „Human Relations Theory” brought a broader human perspective to the managerial field. Elton Mayo highlighted the importance of interpersonal relationships and human factors in organizations. This theory shifted the focus from a strict concentration on tasks and processes to the influence of human factors on productivity (Mayo, 1933).

Douglas McGregor proposed two divergent perspectives on managerial approach in the 1960s: “Theory X and Theory Y.” In *“The Human Side of Enterprise,”* he explored how perspectives on employees can influence managerial style. Theory X assumes that people avoid work and require control, while Theory Y considers that people have a natural predisposition to work and creativity (McGregor, 1960).

In the organizational communication approach, researchers such as Karl Weick and Paul McPhee have contributed to understanding organizational information flow. In the work *„Organizational Communication: Approaches and Processes,”* Miller develops the so-called “Organizational Communication Theory,” analyzing key aspects of organizational communication, with a focus on informational flow and the impact of communicative structures (Weick, 2015).

With the accelerated technological progress, managerial communication has entered the digital realm, fundamentally transforming how managers interact with teams and make strategic decisions. This transition has been the subject of extensive research in Deborah L. Duarte and Nancy Tennant Snyder's work *“Mastering Virtual Teams: Strategies, Tools, and Techniques That Succeed”* (Duarte and Snyder, 2006). In the digital era, technologies have created a reality where managerial teams can collaborate remotely, whether in separate offices, different countries, or even on different continents. This change has led to a revolution in managerial communication practices, placing considerable emphasis on the efficiency and effectiveness of virtual communication.

An essential aspect explored in the hypothesis elaborated by Duarte and Snyder, which does not have a specific name but could easily be called „Managerial Communication Theory in the Digital Age,” is the influence of digital technologies on how managers manage their teams and make decisions. Digitalization has allowed the use of various tools and platforms, such as video conferencing applications, online collaboration platforms, and corporate social networks. These technologies facilitate rapid communication, real-time access to information, and stimulate global collaboration. Duarte and Snyder offer concrete strategies for mastering virtual teams and using digital tools efficiently. They explore methods through which managers can navigate this digital era, addressing challenges related to distance and cultural diversity, facilitating interactions among virtual teams, and promoting a collaborative work environment.

3. The role of Artificial Intelligence in Management

Artificial Intelligence (AI) represents a field of computer science that aims to create systems capable of simulating human intelligence. This complex discipline involves the development of algorithms and mathematical models that enable machines to learn and solve problems, undertake cognitive tasks, and provide data-driven solutions based on experience. In the field of management, AI applications have become increasingly relevant, bringing significant innovations in decision-making, process optimization, and organizational efficiency.

AI plays an essential role in managerial decision-making, offering predictive analytics based on the concept of “big data” (large volumes of data that exceed conventional management capabilities). Machine learning algorithms can anticipate trends, identify risks, and suggest solutions to optimize business strategies (Davenport and Harris, 2007). In operations management, AI can be used to optimize workflows, reduce costs, and create more efficient processes. Automation systems and software robots (RPA) can take on repetitive tasks, allowing employees to focus on more strategic activities (Bughin et al., 2017).

Additionally, this field of computer science facilitates the analysis of complex data, identifying patterns and trends that traditional analyses may overlook. This provides managers with deep insights into organizational performance and helps forecast future developments (Chen et al., 2012). Chatbots and virtual assistance systems using AI technologies can significantly improve customer interactions. They can quickly respond to inquiries, provide personalized assistance, and contribute to increased customer satisfaction (Wirtz et al., 2018). In human resources, AI can be applied to recruitment, performance evaluation, and professional development. Advanced algorithms help identify suitable candidates and efficiently manage human resources (Marler and Boudreau, 2017).

With the accelerated advancement of Artificial Intelligence (AI), organizations have experienced a significant transformation in their structures, bringing essential changes in their operations and decision-making processes. AI has led to a transition to more flexible and adaptable organizational structures. Multidisciplinary and dynamic teams

have replaced rigid hierarchies, encouraged cross-functional collaboration, and promoted innovation within the organization (Marr, 2018). The application of this new technological innovation in operational processes has led to extensive automation of repetitive and routine tasks. By integrating software robots and autonomous systems, organizations have increased efficiency and reduced human errors (Davenport and Harris, 2017). Additionally, AI has provided organizations with unprecedented data analysis and interpretation capabilities. This allows managers to make more informed decisions and anticipate future developments based on predictive analyses (Bughin et al., 2018).

In the field of human resources, Artificial Intelligence has contributed to the efficient management of employee performance. Evaluation systems, based on advanced algorithms, provide an objective and personalized perspective on individual progress (Marler and Boudreau, 2017).

4. Sociology of communication in the era of Artificial Intelligence

With the technological progress and the increasingly widespread adoption of Artificial Intelligence in the business context, we observe significant transformations in social dynamics and in the way communication unfolds between managers and employees. This innovative technology brings about a radical change in the interactions between these two actors. Virtual assistants facilitate rapid and efficient communication, providing instant access to relevant information and streamlining communication processes (Davenport & Harris, 2017). The integration of Artificial Intelligence into the organizational environment has thus brought about a fundamental transformation in how managers and employees interact, facilitating the fluid exchange of information and contributing to more efficient coordination within the organization.

By analyzing complex data and utilizing artificial intelligence, the employee experience is significantly personalized. Advanced algorithms, with the ability to anticipate and respond to individual needs, provide personalized recommendations for training and development (Hagiu and Wright, 2020). This process contributes to improving employee satisfaction and engagement, thus having a positive impact on organizational performance.

Managers benefit from in-depth analyses and detailed information in the decision-making process, thanks to the data analysis capabilities provided by Artificial Intelligence. This approach contributes to formulating more informed managerial strategies and to an improved understanding of the impact of decisions on the team (Bughin et al., 2017). By using this technology, managers acquire improved data analysis skills, facilitating the process of making informed decisions. This aspect contributes to the development of more efficient managerial strategies, based on concrete data and deep analysis, thus representing a relevant alternative to decisions based solely on intuition. In conclusion, integrating AI into the decision-making process brings a higher level of accuracy and effectiveness, strengthening the foundation for more solid managerial decisions.

Artificial Intelligence takes over repetitive and routine tasks, thereby freeing up time for managers to focus on the strategic and relational aspects of work (Marler & Boudreau, 2017). Managers can redirect efforts towards aspects with significant impact within the organization by automating administrative tasks. This process not only optimizes resources but also provides employees with the opportunity to engage in activities with higher added value. Thus, the efficiency of automating repetitive tasks not only saves time and resources but also maximizes human potential within the organization.

5. Case Study: AI-assisted managerial communication at MASPEX Romania

MASPEX, one of the market leaders in the food production industry in Romania, has initiated the implementation of Artificial Intelligence (AI) in its managerial communication processes, aiming to optimize workflows and enhance interdepartmental communication efficiency. This implementation of AI technology has had a significant impact in two key areas: reporting, where a virtual assistant is used for generating managerial reports, and collaboration, where chatbot technology is integrated to improve interactions among employees.

In the first context, MASPEX has adopted an AI-based virtual assistant named “Tableau” for generating managerial reports. This tool collects and analyzes data from various departments, generating detailed reports and graphical presentations. Through this virtual assistant, managers have access to precise and fast information, supporting them in strategic decision-making processes.

In the second context, employees from different departments of MASPEX utilize virtual chatbots such as Google Assistant or IBM Watson Assistant to facilitate internal communication. These virtual assistants can respond to frequently asked questions, direct inquiries to the appropriate departments, and promote efficient communication among team members.

In less than a year since the implementation of these two AI-based assistance tools, significant progress can be observed in data analysis efficiency and in facilitating interdepartmental communication. This evolution confirms the significant benefits brought by the implementation of Artificial Intelligence in MASPEX's managerial context.

Impact Analysis (in 2023 compared to 2022 when artificial intelligence was not used):

- **Improved efficiency:** Implementing AI in report generation has reduced the time required for data compilation and analysis, providing managers with precise real-time information, leading to faster and more efficient decision-making.
- **Faster and more efficient communication:** Using the chatbot has facilitated communication between teams, eliminating delays and confusion associated with repetitive questions. This has led to smoother collaboration and prompt problem resolution.

6. Ethical and sociological implications

With the advancement of technology and the increasingly widespread integration of Artificial Intelligence in managerial communication, significant ethical dilemmas and social challenges arise. These aspects raise fundamental questions about ethics in technology and the social impact of adopting Artificial Intelligence in the organizational context.

A major challenge is represented by the dilemma of data confidentiality. In an environment where AI processes and analyzes a large volume of data, questions arise about how organizations manage the confidentiality of employee and customer information. This raises the need to establish clear and transparent standards for collecting and using data ethically and responsibly (Smith, 2020).

Another dilemma is related to decision-making transparency in processes managed by this modern technology. How can managers understand and explain how the technology arrives at certain conclusions or recommendations? The need for transparency in decision-making becomes crucial to avoid opacity in the functioning of these systems and to ensure their understanding and acceptance within the organization (Mittelstadt et al., 2019).

The accelerated progress of AI can lead to the automation of tasks currently performed by humans. This generates ethical dilemmas related to job loss and the widening of social inequalities. It is imperative to address these issues and find equitable solutions to manage the transition to a workforce where technology plays an increasingly significant role (Brynjolfsson and McAfee, 2014).

7. The future of managerial communication in the light of Artificial Intelligence

The future of managerial communication is shaping up as a fascinating landscape, dominated by the central presence of Artificial Intelligence, which redefines the foundation of organizational sociology. The remarkable potential of this technology to influence the evolution of managerial communication becomes evident through its multiple significant contributions.

Primarily, the integration of this technology into managerial communication processes promises a significant improvement in efficiency. AI virtual assistants can quickly analyze data, thus facilitating the process of making informed decisions and accelerating communication among team members (Davenport et al., 2018). Another essential aspect is the personalization of the employee experience. The use of these systems in managerial communication allows for the anticipation of individual preferences, providing recommendations and tailored support to the needs of each team member (West, 2021).

Improving collaboration and stimulating creativity are also key areas influenced by artificial intelligence. Through data analysis and insights generation, AI supports collaboration between teams, facilitating the exchange of ideas. Virtual assistants can identify patterns to support innovation and drive creativity within organizations (Wright et al., 2020).

However, such a significant evolution does not come without challenges. With the transformation induced by this innovation, ethical issues related to data confidentiality and social implications for human jobs arise (Floridi et al., 2018). Careful consideration of these aspects is essential to ensure the ethical and equitable integration of Artificial Intelligence in managerial communication.

8. Conclusions

Therefore, we can affirm that Artificial Intelligence represents a true innovation in the field of management, reconfiguring the way organizations make decisions, manage processes, and interact with customers. In the context of an increasingly digitized business world, AI applications are becoming increasingly essential to ensure the competitiveness and adaptability of organizations. Changes in organizational structures not only optimize existing processes but also redefine how organizations operate, innovate, and interact with their environment. This ongoing transition becomes a necessary adaptation for modern organizations aspiring to remain competitive and thrive in an ever-evolving business landscape.

The impact of Artificial Intelligence on social dynamics and communication within organizations represents a transformative phenomenon. From facilitating communication to personalizing employee experiences and making informed decisions, AI becomes a catalyst for innovation in management and brings with it a series of benefits for work teams and organizations. Artificial Intelligence not only helps transform social dynamics and communication in organizations but also redefines how managers and employees collaborate, make decisions, and conduct their activities in the professional environment.

In an environment where this technology becomes increasingly present in managerial communication, it is essential to implement robust ethical regulations and standards to protect data confidentiality and ensure transparency and fairness in decision-making processes. Additionally, it is important to invest in training and professional retraining programs to manage the impact on jobs and promote a fair transition to a future where AI and humans collaborate efficiently.

From my perspective, the integration of Artificial Intelligence into managerial communication opens significant opportunities for optimizing processes and improving organizational performance. However, it is crucial to carefully address ethical and social aspects, ensuring that technological progress is implemented responsibly and beneficially for society. Through this revolution in managerial communication, Artificial Intelligence has become not only a technical tool but also an indispensable partner in facilitating efficient, personalized, and innovative communication in the organizations of the future.

9. Limitations and suggestions for future research

The current study focuses on Artificial Intelligence technology, somewhat overlooking the influence of human, organizational, and social factors to some extent. This intrinsic

limitation restricts the comprehensive understanding of the impact that AI has on managerial communication. Additionally, the research is based on specific technologies or platforms developed up to the year 2024, yet the rapid pace of innovation acceleration in the field of Artificial Intelligence may alter perspectives in the future.

To overcome these limitations, future research can enhance external validity and generalizability by expanding investigations to a broader and more diverse sample of organizations, considering cultural and industrial varieties. A detailed study regarding specific organizational variables that may influence the impact of AI on managerial communication could significantly contribute to understanding the context in which these technologies are implemented.

Moreover, an in-depth analysis of employee perceptions and experiences regarding the use of AI technology in managerial communication could provide a more human and contextualized perspective. In this regard, future research could delve deeper into ethical aspects related to the implementation of AI in managerial communication, including data confidentiality, algorithm transparency, and the impact on job security.

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