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# THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE DYNAMICS OF FORMAL AND INFORMAL INTERNAL COMMUNICATION IN ECONOMIC ORGANIZATIONS

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**Abstract:** The dynamic evolution of the contemporary business environment compels organizations to adopt advanced strategies to enhance the effectiveness of internal communication. Internal communication—encompassing both formal and informal exchanges among employees—constitutes a critical element in fostering organizational culture, facilitating collaboration, and supporting the overall functionality of organizational structures. Within this framework, artificial intelligence (AI) is increasingly acknowledged as a transformative force capable of reshaping internal communication processes. This study explores the impact of AI-assisted communication tools on the dynamics of internal organizational communication, with particular attention to employees' perceptions and the distinction between formal and informal communication practices. The empirical analysis is based on a quantitative survey conducted among 592 full-time employees, aiming to assess trust in AI technologies, usage experiences, and perceived changes in communication patterns resulting from the integration of AI into internal communication systems. The results indicate a generally high level of employee trust in AI-supported tools, especially within formal communication contexts. Participants reported improvements in efficiency, access to information, and time management. Nonetheless, the findings also draw attention to perceived drawbacks, including reduced interpersonal interaction, depersonalization of communication, and diminished emotional resonance in workplace exchanges. The article contributes to a deeper understanding of the effects of digital technologies on organizational communication—an insight of particular importance for management and their decision-making regarding technology adoption.

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## Introduction

Communication theory, as an established scientific discipline, enables a deeper understanding of the processes of message transmission, reception, and interpretation, as well as the influence of various variables on communication dynamics. Within this framework, communication in economic organizational structures is conceptualized as a dynamic and multifaceted process of information exchange, with an emphasis on effective interaction among employees, management, and other stakeholders (Griffin, 2019). It represents a complex field, grounded in various theoretical approaches, including cultural studies and cognitive theory (West et al., 2010).

Based on these premises, internal communication is recognized as a key factor in the successful functioning of organizations (Mishra et al., 2014), as it facilitates the coordination of activities toward the achievement of shared goals (Sumatra et al., 2023). Internal communication within economic organizations encompasses both formal and informal modes of information exchange, each contributing to organizational cohesion and overall effectiveness (Johnson et al., 1994; Kandlousi et al., 2010; Kraut et al., 1990).

In the context of digital transformation, technologies supported by artificial intelligence (AI) are increasingly integrated into both formal and informal communication processes, offering new opportunities but also posing certain challenges to organizations. Features such as speed, accuracy, personalization, and automation position AI tools as pivotal innovations that potentially reshape organizational communication dynamics (Getchel et al., 2022).

The aim of this paper is to examine how artificial intelligence affects internal communication processes within economic organizational structures. Special attention is given to the distinction between formal and informal communication forms and to the analysis of employees' experiences and perceptions regarding the impact of AI tools on communication dynamics. This research contributes to a better understanding of the transformations introduced by artificial intelligence into modern communication practices and opens space for critical reflection on the balanced integration of technology into the workplace.

## 1. Literature review

### *Internal communication and its forms*

Internal communication within organizations involves both formal and informal modes of information exchange (Johnson et al., 1994; Kandlousi et al., 2010; Kraut et al., 1990). Formal communication occurs within employees' professional roles and is oriented toward task execution. It encompasses planning, task allocation, and

information transfer (Brennecke & Rank, 2016), and is characterized by structure, standardization, and official tone (Chen & Krauskopf, 2013; Kraut et al., 1990). In contrast, informal communication involves employees in their personal roles, interacting as friends or acquaintances, with the aim of building and maintaining personal relationships (Holmes, 2003). It is grounded in basic human needs for physical proximity, social belonging, spontaneous expression, and the interpretation of hierarchical cues (Kraut et al., 1990). Besides personal topics, it often includes discussions about colleagues, the organization, and work-related matters (Chen & Krauskopf, 2013; Fayard & Weeks, 2007; Isaacs et al., 1997).

### *Artificial intelligence in the organizational context*

In recent years, digital communication—including technologies supported by artificial intelligence—has become increasingly prevalent in both formal and informal organizational communication processes. Due to their speed, precision, and automation, AI tools are becoming indispensable in the modern workplace (Getchel et al., 2022). The term "artificial intelligence" was first coined by John McCarthy in the 1950s, and since then, various definitions have emerged. Russell and Norvig (2016) identify four main approaches, Nilsson (1998) defines AI as "intelligent behavior of artifacts," and Poole and Mackworth (2017) refer to it as "computer agents that act intelligently." Common to all definitions is the emphasis on learning, adaptability, and functioning in complex environments (Tredinnick, 2017; Schweyer, 2018; Kaplan & Haenlein, 2018).

### *Advantages and limitations of AI in communication*

AI enables organizations to automate repetitive tasks, thus increasing efficiency and allowing employees to focus on strategic activities (Na et al., 2022). It reduces errors (Sohn & Kwon, 2020), allows for communication customization based on pattern analysis (Nah et al., 2020), but also raises concerns related to dehumanization, reduced personal interaction, and a lack of emotional contextualization (Kaczmarek-Śliwińska, 2019; Hasija & Esper, 2022). Moreover, it may result in a perceived loss of control over communication and diminished job satisfaction (Vorm & Combs, 2022), while data security and privacy pose additional challenges (George et al., 2023).

Guzman and Lewis (2020) argue that successful integration of AI into communication practice requires more than technological implementation—it also demands a strong grounding in communication theory. A lack of transparency and understanding of how AI tools operate often leads to distrust and resistance (Vorm & Combs, 2022).

## 2. Research method and description

This study focuses on the primary research question concerning the role of artificial intelligence (AI) in internal communication processes within organizational structures. It aims to examine both the positive and negative effects of AI-assisted communication tools on internal organizational communication. The central research question is elaborated through the following sub-questions:

- Do employees trust AI-assisted communication tools, and do these tools influence the dynamics of internal communication among employees in organizational structures?
- Do AI-assisted communication tools promote formal and informal communication processes within organizations?
- Does the use of AI-assisted communication tools affect the frequency, quality, and effectiveness of internal communication in organizational settings?
- How does the use of AI-assisted communication tools impact social interaction among colleagues?

The primary objective of the research is to gain a general understanding of the impact of AI-assisted communication tools on internal communication processes within organizational structures. The study does not explicitly examine potential differences across demographic groups such as gender, age, or educational background.

Four research hypotheses are proposed to explore the perceived relevance, usefulness, and trust in AI-enabled communication tools and to analyze their influence on internal communication as well as the broader effects of their implementation:

**H1:** Employees express trust in AI-assisted communication tools, which significantly influence the dynamics of internal communication processes in organizational structures.

**H2:** AI-assisted communication tools promote internal communication among colleagues, particularly within formal communication processes.

**H3:** The use of AI-assisted communication tools positively affects the frequency, quality, and effectiveness of internal communication in organizational settings.

**H4:** The use of AI-assisted communication tools leads to a decrease in direct social interaction among employees.

The secondary phase of the study involved the systematic collection and analysis of existing scholarly sources, applying scientific methods such as induction, analysis, synthesis, comparison, and generalization. The empirical phase of the

research was based on primary data collection aimed at addressing the central research question.

The main data collection tool was an online questionnaire, distributed via the social media platform Facebook and by email. Participation in the study was both voluntary and anonymous. The target group included full-time employees who actively use AI-assisted communication tools within internal organizational structures. Respondents who did not meet this inclusion criterion were excluded through a control (screening) question placed at the beginning of the survey. Respondents expressed their views using a five-point Likert scale. The collected data were processed using Microsoft Excel.
The study examined three core dimensions:

(1) the perceived importance of and trust in modern communication tools supported by artificial intelligence (AI) within organizational structures;
(2) the impact of these tools on internal communication dynamics; and
(3) the effects of their use on the quality of communication processes.

To ensure a shared understanding of the key concepts, the introductory section of the questionnaire provided definitions of internal communication, artificial intelligence, and AI-assisted communication tools, thereby establishing a common reference framework for all participants.

The analysis was based on a sample of 592 valid responses. The sample was generated using a random inclusion approach and comprised 271 male respondents (46%) and 321 female respondents (54%). Demographic variables were collected but not subjected to further in-depth statistical analysis.

Descriptive statistics revealed that the largest share of respondents (41%) belonged to the 31–40 age group, while the majority (54%) had completed vocational or secondary education.
*In the tables, N indicates a number, and the % sign indicates a percentage value

**Table 1: Age of respondents**

| Age | Up to 20 years | | From 21 to 30 years | | From 31 to 40 years | | From 41 to 50 years | | From 51 to 60 years | | 61 years and older | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Male | 15 | 4.1 | 87 | 32.4 | 101 | 41.0 | 48 | 17.9 | 18 | 3.72 | 2 | 0.67 |
| Female | 9 | | 106 | | 142 | | 58 | | 4 | | 2 | |

*Source:* Results of the authors' own research

**Table 2: Education of respondents**

| Education | Primary school | | Vocational secondary school or general secondary school | | Higher education or university | | Master's degree or doctorate | |
|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % |
| Male | 9 | 3.4 | 141 | 54.0 | 106 | 37.7 | 15 | 4.9 |
| Female | 11 | | 179 | | 117 | | 14 | |

*Source:* Results of the authors' own research

## 3. Results and analysis

The first section of the questionnaire examined respondents' perceptions regarding the importance, perceived appropriateness, and trust in AI-assisted communication tools within organizational structures, with a particular focus on their influence on the dynamics of internal communication. The results show that 55.6% of respondents either agreed or strongly agreed that AI-assisted communication tools play a significant role in the modern business context. Furthermore, 58.8% considered these tools to be useful and increasingly essential for communication practices in organizational settings. Regarding the statement that AI-assisted communication tools have become the "new reality" of internal communication, 39.3% of respondents expressed agreement, while 60.7% either disagreed or remained undecided. The average score for this item was M = 3.01, indicating an overall neutral stance. The standard deviation (SD = 0.89) suggests moderate consistency among responses. A particularly notable finding relates to the perceived importance of adequate employee training in the use of AI-assisted communication tools, as 79.1% of respondents either agreed or strongly agreed with this statement. An even larger proportion, 80.4%, confirmed a growing level of trust in the use of AI-based communication tools in contemporary organizational structures. This item recorded the highest mean score in this section (M = 4.36), indicating strong overall support. Moreover, 62.7% of participants affirmed that AI-assisted tools are changing the dynamics of internal communication—particularly in terms of frequency, quality, and modes of interaction. The mean score of M = 2.95 suggests a moderately positive perception of these changes. The low standard deviation (SD = 0.74) further indicates relatively homogeneous views across respondents, reflecting consistent perceptions of how AI-supported communication tools affect internal communication dynamics.

**Table 3: Relevance, usefulness and trustworthiness of modern AI-assisted communication tools in organizational structures**

| **Set 1: Relevance and trustworthiness of AI-assisted communication tools** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Statement** | | **Responses** | | | | | | | |
| | | 1 Strongly disagree | 2 Disagree | 3 Neither agree nor disagree | 4 Agree | 5 Strongly agree | SUM N (number) % (percentage) | M | SD |
| 1. | AI-assisted communication tools play an increasingly important role in the modern business environment | 28 | 56 | 179 | 256 | 73 | 592 | 3.49 | 1.21 |
| | | 4.7% | 9.5% | 30.2% | 43.2% | 12.3% | 100% | | |
| 2. | AI-assisted communication tools are useful and increasingly necessary in organizational structures | 11 | 32 | 201 | 244 | 104 | 592 | 3.9 | 1.91 |
| | | 1.9% | 5.4% | 34.0% | 41.2% | 17.6% | 100% | | |
| 3. | AI-assisted communication tools have become the new reality of communication processes in organizational structures | 69 | 91 | 199 | 182 | 51 | 592 | 3.1 | 0.89 |
| | | 11.7% | 15.4% | 33.6% | 30.7% | 8.6% | 100% | | |
| 4. | Adequate training of employees to use AI-assisted communication tools is important | 14 | 31 | 79 | 211 | 257 | 592 | 4.13 | 2.55 |
| | | 2.4% | 5.2% | 13.3% | 35.6% | 43.4% | 100% | | |
| 5. | There is increasing trust in modern AI-assisted communication tools | 5 | 26 | 85 | 112 | 364 | 592 | 4.36 | 3.01 |
| | | 0.84% | 4.39% | 14.36% | 18.92% | 61.49% | 100% | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6. | AI-assisted communication tools change the dynamics (modes, quality, and frequency) of internal communication between employees in organizational structures | 29 | 54 | 197 | 208 | 104 | 592 | 2.95 | 0.74 |
| | | 4.9% | 9.1% | 23.3% | 45.1% | 17.6% | 100% | | |

*Source:* Results of the authors' own research

The second section of the analysis explored the perceived influence of AI-assisted communication tools on internal communication within organizational structures, with particular attention to differences between formal and informal communication processes. Findings reveal that nearly 60% of respondents agree or strongly agree that the presence of AI-assisted communication tools encourages internal communication within organizations. The relatively low standard deviation (SD = 0.65) indicates limited variability in responses, suggesting a high degree of consensus regarding the perceived stimulating effect of these tools on internal communication.

In contrast, a substantial proportion of respondents (81.6%) either disagreed or remained neutral on the statement that AI-assisted tools contribute to more frequent interpersonal communication between colleagues, while only 2.9% strongly agreed with this view. This points to persistent skepticism about the role of AI in enhancing informal, relational dimensions of communication.

A particularly insightful finding relates to the distinction between formal and informal communication. Almost 75% of respondents indicated that AI-assisted tools are more commonly applied in formal communication processes. The mean score of 3.91 confirms a general perception that these technologies are primarily embedded in structured, task-oriented communication. Moreover, the low standard deviation (SD = 0.55) highlights a strong consensus on this topic, reflecting limited divergence in respondent views.

In terms of operational functionality, 55% of respondents agree that AI-assisted tools facilitate the faster resolution of communication-related challenges among colleagues. Even more compelling, over 85% of participants affirmed that these tools enhance access to critical information within the organization - an indication of their practical value in information management and organizational efficiency.

**Table 4: Impact of AI-assisted communication tools on internal communication in organizational structures**

| **Set 2: Impact of AI communication tools on internal communication** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Statement** | | **Responses** | | | | | | | |
| | | 1 Strongly disagree | 2 Disagree | 3 Neither agree nor disagree | 4 Agree | 5 Strongly agree | SUM N (number) % (percentage) | M | SD |
| 1. | The presence of AI-assisted communication tools encourages internal communication in organizational structures. | 19 | 31 | 189 | 224 | 129 | 592 | 3.70 | 0.65 |
| | | 3.2% | 5.2% | 31.9% | 37.8% | 21.8% | 100% | | |
| 2. | Due to AI-assisted communication tools, there is more internal communication between colleagues. | 46 | 89 | 348 | 92 | 17 | 592 | 2.91 | 1.19 |
| | | 7.8% | 15.0% | 58.8% | 15,5% | 2.9% | 100% | | |
| 3. | AI-assisted communication tools are used more often in formal than in informal communication in organizational structures. | 27 | 66 | 56 | 224 | 219 | 592 | 3.91 | 0.55 |
| | | 4.6% | 11.1% | 9.50% | 37.8% | 37% | 100% | | |
| 4. | AI-assisted tools enable the faster resolution of communication challenges among colleagues. | 36 | 93 | 137 | 214 | 112 | 592 | 3.46 | 1.24 |
| | | 6.1% | 15.7% | 23.1% | 36.1% | 18.9% | 100% | | |
| 5. | AI-assisted communication tools facilitate access to important information in the organization. | 12 | 47 | 26 | 263 | 244 | 592 | 4.15 | 1.1 |
| | | 2.0% | 7.9% | 4.4% | 44.4% | 41.2% | 100% | | |

*Source:* Results of the authors' own research

The third section of the analysis focuses on evaluating the perceived effects of AI-assisted communication tools on the quality, frequency, and interpersonal dynamics of internal communication within organizational structures. Findings show that a significant proportion of respondents (63.7%) either disagreed or remained neutral regarding the statement that AI-supported communication tools positively influence the quality of internal communication. Only 36.3% of respondents expressed agreement with this assertion, indicating a cautious or reserved attitude toward the qualitative benefits of such technologies.

Similarly, 60.1% of participants either disagreed or were undecided about whether the use of AI-assisted tools increases the frequency of workplace communication, with only 11.7% strongly endorsing this claim. Regarding communication effectiveness—defined in terms of speed, clarity, and expression—48% of respondents agreed or strongly agreed that AI-assisted tools lead to improvements, while 11% expressed strong disagreement, suggesting a polarization in user experience.

A notably high proportion of respondents (80.4%) affirmed that the implementation of AI in communication tools enables time savings in executing more complex tasks. The mean score (M = 3.65) reflects general agreement, while the standard deviation (SD = 1.39) indicates substantial variability in individual responses.

Concerns regarding the interpersonal dimension of communication were also evident. 79.7% of respondents agreed that the integration of AI tools reduces direct communication among colleagues. Additionally, 69.3% believed that such tools promote a shift toward more impersonal communication, while 16.6% disagreed.

Furthermore, 68.2% of participants concurred with the statement that the use of AI-assisted communication tools can result in a lack of empathy and emotional intelligence in workplace interactions. Despite these reservations, 73.3% of respondents acknowledged that AI-assisted communication tools simplify communication processes, with 34% expressing strong agreement. The most striking consensus emerged around the social impact: 87.8% of respondents agreed that these tools reduce social contact between colleagues, underscoring potential long-term implications for organizational culture and interpersonal cohesion.

**Table 5: Effects of the use of AI-assisted communication tools in organizational structures**

| **Set 3: The effects of AI communication tools** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Statement** | | **Responses** | | | | | | | |
| | | 1<br>Strongly disagree | 2<br>Disagree | 3<br>Neither agree nor disagree | 4<br>Agree | 5<br>Strongly agree | SUM<br>N (number)<br>% (percentage) | M | SD |
| 1. | AI-based communication tools have a positive impact on the quality of internal communication | 84 | 181 | 112 | 109 | 106 | 592 | 3.43 | 1.23 |
| | | 14.2% | 30.6% | 18.9% | 18.4% | 17.9% | 100% | | |
| 2. | The use of AI-assisted communication tools increases the frequency of communication in organizational structures | 89 | 124 | 143 | 167 | 69 | 592 | 3.41 | 1.21 |
| | | 15.0% | 20.9% | 24.2% | 28.2% | 11.7% | 100% | | |
| 3. | AI-assisted communication tools improve the effectiveness (speed, clarity and expression) of communication between colleagues | 77 | 108 | 123 | 138 | 146 | 592 | 3.34 | 1.06 |
| | | 13% | 18.2% | 20.8% | 23.3% | 24.7% | 100% | | |
| 4. | Implementing AI in communication tools saves time when performing more complex tasks | 21 | 38 | 57 | 284 | 192 | 592 | 3.65 | 1.39 |
| | | 3.5% | 6.4% | 9.6% | 48.0% | 32.4% | 100% | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5. | The introduction of AI tools reduces direct communication between colleagues | 23 | 46 | 51 | 204 | 268 | 592 | 3.39 | 1.29 |
| | | 3.9% | 7.8% | 8.6% | 34.5% | 45.3% | 100% | | |
| 6. | The use of AI-assisted communication tools leads to impersonal communication within organizational structures | 39 | 59 | 84 | 197 | 213 | 592 | 3.49 | 1.11 |
| | | 6.6% | 10.0% | 14.2% | 33.3% | 36.0% | 100% | | |
| 7. | There can be a lack of empathy and emotional intelligence when using AI-assisted communication tools | 48 | 41 | 99 | 263 | 141 | 592 | 3.48 | 1.36 |
| | | 8.1% | 6.9% | 16.7% | 44.4% | 23.8% | 100% | | |
| 8. | AI-assisted communication tools simplify communication between employees | 51 | 58 | 49 | 233 | 201 | 592 | 3.49 | 1.36 |
| | | 8.6% | 9.8% | 8.3% | 39.4% | 34.0% | 100% | | |
| 9. | The use of AI-assisted communication tools reduces social contact between colleagues | 8 | 26 | 38 | 316 | 204 | 592 | 3.58 | 1.29 |
| | | 1.4% | 4.4% | 6.4% | 53.4% | 34.5% | 100% | | |

*Source:* Results of the authors' own research

## 4. Discussion

### Set 1

The analysis of the first set of statements, which addresses the relevance, usefulness, and trust in modern AI-assisted communication tools in organizational structures, reveals a generally positive perception among respondents. These

findings align with the study by Getchell et al. (2022), which emphasizes the growing popularity and acceptance of AI-supported technologies in organizational settings. Most respondents acknowledge the relevance and utility of AI tools in the contemporary business environment, indicating a relatively high level of trust in such technologies as effective enablers of internal communication.

However, opinions diverge when it comes to the extent to which these tools represent a "new reality" for internal communication processes. The neutral average value and moderate standard deviation suggest some hesitancy or lack of consensus. A strong consensus was observed concerning the need for appropriate employee training in the use of AI-assisted communication tools, echoing concerns raised by Vorm and Combs (2022), who emphasize the potential for mistrust stemming from the insufficient understanding of AI technologies. This is further supported by Kuberkar and Singhal (2020) and Davis (1989), who highlight the role of perceived ease of use in technology acceptance.

Building trust requires not only technical functionality but also user education. Hasija and Esper (2022) advocate for enhanced transparency regarding how these tools operate, while Kelly et al. (2022) suggest that organizations should emphasize practical benefits in daily tasks to promote adoption. Although respondents express cautious optimism regarding changes brought about by AI in communication dynamics, the findings suggest that organizations are gradually adapting to emerging technological trends. This may indicate a growing readiness to integrate AI tools as part of everyday internal communication processes. Based on the overall results, the first hypothesis—asserting that employees trust new AI-assisted communication tools that significantly affect internal communication processes—is supported.

### Set 2

The second set of findings focuses on the influence of AI-assisted tools on internal communication processes, particularly in terms of encouraging interaction. The data indicate that approximately 60% of respondents agree that such tools have a generally positive impact, confirming the first part of the second hypothesis—that AI-based tools encourage internal communication. These findings are consistent with the work of Hamm and Klesel (2021), who argue that AI tools must be seamlessly integrated into existing communication systems to gain broader user acceptance.

Nonetheless, a significant portion of respondents (81.6%) either disagree or remain undecided about whether AI tools increase the frequency of mutual communication among colleagues. Only 2.9% strongly support this statement. This suggests that while AI may facilitate communication structurally, it may not inherently increase interpersonal interactions. Farhi et al. (2022) emphasize the dual importance of communication quality and frequency, reinforcing the notion

that AI tools may maintain baseline communication but do not necessarily enhance informal interaction volumes.

The findings also indicate that 75% of respondents perceive AI-assisted tools as being more commonly used in formal communication than in informal exchanges. This reinforces the second part of the hypothesis and highlights a prevailing perception that AI tools are better suited for structured, task-oriented communication. As noted by Hasija and Esper (2022), increasing transparency, fostering understanding, and building trust in AI systems may help reduce resistance, particularly in more relational and unstructured communication contexts.

Future research should explore how organizations can mitigate these obstacles—especially in the context of informal communication. Barriers such as low perceived trust, limited transparency, or fears of losing control over communication may be influencing current attitudes. Addressing these concerns is essential for the broader acceptance and integration of AI-supported communication tools across both formal and informal organizational dimensions.

### Set 3

The third set of results provides insights into how AI-assisted communication tools affect internal communication quality, efficiency, and interpersonal dynamics. Only 36.3% of respondents agreed that AI tools have a positive effect on the quality of internal communication, while the majority remained neutral or skeptical. This underscores the need for awareness-raising efforts and employee education on the optimal use of such tools. Greenwood (1997) predicted that AI-assisted tools would become essential for organizations aiming to remain competitive and technologically advanced.

About half of the respondents believe that AI tools enhance communication efficiency (i.e., speed, clarity, and expressiveness). However, high response variability suggests that individual experiences with these tools differ significantly. This supports the recommendation by Collision and Lee (2022) for the development of AI systems tailored to human communication preferences, adaptable to team-specific needs.

A critical concern highlighted in this study is the erosion of social interaction. A vast majority of respondents (87.9%) agree that AI-supported communication reduces direct communication, fostering a more impersonal communication style. This finding aligns with Nah et al. (2020) and West et al. (2010), who caution that AI tools may contribute to robotic forms of communication, diminishing the human element vital to effective collaboration and interpersonal relationship-building.

Interestingly, 80.4% of respondents believe that AI tools help save time when dealing with complex tasks, indicating operational efficiency as a key benefit. Olan et al. (2022) similarly note that AI facilitates faster, more precise communication

and task automation. However, concerns persist regarding the potential loss of empathy and emotional nuance—68.2% of respondents feel that AI reduces social contact and emotional intelligence in communication. These concerns reinforce Gunkel's (2012) warning that AI may pose risks of dehumanizing workplace interactions.

Taken together, these findings partially support the third hypothesis—AI tools positively impact the quality and efficiency of communication but not its frequency. Meanwhile, the data strongly support the fourth hypothesis: that AI-assisted communication tools reduce direct communication and social contact, confirming potential drawbacks of overreliance on technology in maintaining interpersonal dynamics in organizational life.

## 5. Conclusion

The research offers an in-depth insight into the role of artificial intelligence in the internal communication processes of economic organizational structures. The findings indicate a clear preference among the majority of respondents for the use of AI-supported tools, reflecting a high level of trust in technological innovation and confirming their significant role as facilitators of internal communication in modern organizations.

It is particularly noteworthy that over three-quarters of respondents report more frequent use of these tools in formal communication processes compared to informal communication. This points to a potentially uneven distribution of AI use, raising questions regarding its differential impact on various dimensions of organizational communication dynamics. As such, future research could focus specifically on the effects of AI-based tools on informal communication processes—an area that currently remains underexplored. We assume that this dimension may be essential for a comprehensive understanding of organizational communication, given that the impact of AI on informal interactions differs significantly from its influence on formal processes.

Moreover, the findings suggest that AI tools function as important enablers of communication, contributing to faster resolution of communication challenges, more efficient access to information, and greater overall clarity and accuracy. These positive effects may substantially improve operational workflows and employee productivity. However, despite these advantages, the research also identifies potential drawbacks. The use of AI tools may reduce direct interpersonal contact among colleagues, which can negatively influence the development of personal relationships and undermine team cohesion. The decrease in empathy and human connection resulting from the automation of communication processes presents a critical challenge to maintaining strong interpersonal bonds and a positive organizational climate.

The research underscores the need for organizations to develop a deep and practical understanding of AI technologies and to align their internal strategies and policies accordingly. This includes providing adequate training for employees, fostering transparency regarding the use of AI tools, and ensuring employees understand how these technologies function. Equally important is the development of balanced approaches that integrate AI without diminishing the value of personal interactions, which are essential to sustaining strong working relationships and organizational cohesion.

Despite notable progress in integrating AI-based tools into organizational communication practices, numerous open questions remain. Future research should, therefore, examine the long-term effects of AI on organizational culture, employee well-being, and business outcomes. Particular attention should be payed to the management of AI tools in informal communication contexts, where interpersonal dynamics are especially sensitive. Further studies could also investigate how AI impacts key organizational variables, including job satisfaction, organizational commitment, and innovative behavior.

## References

Brennecke, J., & Rank, O. N. (2016). The interplay between formal project memberships and informal advice seeking in knowledge-intensive firms: A multilevel network approach. *Social Networks, 44*, 307-318. https://www.sciencedirect.com/science/article/abs/pii/S037887331500009X., accessed Jan 2, 2024

Chen, B., & Krauskopf, J. (2013). Integrated or disconnected? Examining formal and informal networks in a merged nonprofit organization. *Nonprofit Management and Leadership, 23*(3), 325-345.https://doi.org/10.1002/nml.21063, accessed Jan 2, 2024

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *Management Information Systems Quarterly, 13*(3), 319.https://doi.org/10.2307/249008., accessed May 1, 2024

Farhi, F., Jeljeli, R., & Belarbi, A. (2022). Artificial intelligence in sustaining internal communication in the corporate sector: The mediation of two-way communication perspective of PR. *2022 International Arab Conference on Information Technology (*ACIT ).https://doi.org/10.1109/acit57182.2022.9994146, accessed Feb 14, 2024

Fayard, A. L., & Weeks, J. (2007). Photocopiers and water-coolers: The affordances of informal interaction. *Organization Studies, 28*(5), 605-634.https://doi.org/10.1177/0170840606068310., accessed Apr 12, 2024

Getchell, K. M., Carradini, S., Cardon, P. W., Fleischmann, C., Ma, H., Aritz, J., & Stapp, J. (2022). Artificial intelligence in business communication: The changing landscape of research and teaching. *Business and Professional Communication Quarterly, 85*(1), 7-33.https://doi.org/10.1177/23294906221074311, accessed Feb 14, 2024

Greenwood, D.J. (1997). Organizational Learning II: Theory, method, and practice [review of Organizational Learning II: Theory, method, and practice]. *ILR Review, 50*(4), 701–

702. New York State School of Industrial and Labor Relations, Cornell University.https://doi.org/10.2307/2525281., accessed Feb 16, 2024

Griffin, E. (2019). A first look at communication theory. *McGraw-Hill Education*.

Gunkel, D.J. (2012). communication and artificial intelligence: Opportunities and challenges for the 21st century. *Communicatio, 1*(1), 1-25.https://doi.org/10.7275/r5qj7f7r., accessed Feb 11, 2024

Guzman, A. L., & Lewis, S. C. (2020). Artificial intelligence and communication: A human–machine communication research agenda. *New Media & Society, 22*(1), 70-86.

Hamm, P., & Klesel, M. (2021). Success factors for the adoption of artificial intelligence in organizations: A Literature Review. And *AMCIS*. https://aisel.aisnet.org/amcis2021/art_intel_sem_tech_intelligent_systems/art_intel_sem_tech_intelligent_systems/10/., accessed Jan 21, 2024

Hasija, A., & Esper, T. L. (2022). In artificial intelligence (AI) we trust: A qualitative investigation of ai technology acceptance. *Journal of Business Logistics, 43*(3), 388-412.https://doi.org/10.1111/jbl.12301., accessed Feb 4, 2024

Holmes, J. (2003). Small talk at work: potential problems for workers with an intellectual disability. *Research on Language and Social Interaction, 36*(1), 65-84. Available at http://doi.org/10.1207/S15327973RLSI3601_4., accessed Jan 15, 2024

Isaacs, E., Whittaker, S., & Frohlich, D. M. (1997). Informal communication re-examined: New functions for video opportunistic encounters. And K. E. Finn, A. J. Sellen, & S. B. Wilbur (Eds.), *Video-mediated Communication* (pp. 1-30). Lawrence Erlbaum.

Johnson, J. D., Donohue, W. A., Atkin, C. K., & Johnson, S. (1994). Differences between formal and informal communication channels. *The Journal of Business Communication, 31*(2), 111-122. Retrieved from http://doi.org/10.1177/002194369403100202., accessed Apr 7, 2024

Kaczmarek-Śliwińska, M. (2019). Organizational communication in the age of artificial intelligence development: Opportunities and threats. *Social Communication, 5*(2), 62-68.

Kandlousi, N. S. A. E., Ali, A. J., & Abdollahi, A. (2010). Organizational citizenship behavior in concern of communication satisfaction: the role of the formal and informal communication. International Journal of Business and Management, 5(10), 51-61.http://doi.org/10.5539/ijbm.v5n10p51., accessed Apr 12, 2024

Kaplan, A., & Haenlein, M. (2019). Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence. *Business Horizons, 62*(1), 15-25.

Kelly, S., Kaye, S., & Oviedo-Trespalacios, O. (2022). What factors contribute to the acceptance of artificial intelligence? A systematic review. *Telematics and Informatics, 77*, 101925.https://doi.org/10.1016/j.tele.2022.101925., accessed Apr 20, 2024

Kraut, R. A., Fish, R. S., Root, R. W., & Chalfonte, B. L. (2002). *Informal Communication in Organizations: Form, Function and Technology* (White Paper).

Kuberkar, S., & Singhal, T. K. (2020). Factors influencing adoption intention of AI powered chatbot for public transport services within a smart city. *International Journal of Emerging Technologies in Learning, 11*(3), 948-958.

Mishra, K.E., Boynton, L.A., & Mishra, A. K. (2014). Driving employee engagement. *International Journal of Business Communication, 51*(2), 183-202.https://doi.org/10.1177/2329488414525399., accessed Feb 12, 2024

Nah, S., McNealy, J. E., Kim, J. K., & Joo, J. (2020). Communicating artificial intelligence (AI): Theory, research, and practice. *Communication Studies, 71*(3), 369-372.https://doi.org/10.1080/10510974.2020.1788909., accessed Mar 11, 2024

Nilsson, N.J. (1998), *Artificial intelligence: A new synthesis*, Morgan Kaufmann, San Francisco, CA.

Olan, F., Arakpogun, E. O., Suklan, J., Nakpodia, F., Damij, N., & Jayawickrama, U. (2022). Artificial intelligence and knowledge sharing: Contributing factors to organizational performance. *Journal of Business Research, 145*, 605-615.https://doi.org/10.1016/j.jbusres.2022.03.008., accessed Jan 11, 2024

Poole, D. L. and Mackworth, A. K. (2017), *Artificial intelligence: Foundations of computational agents*, Oxford University Press, New York, NY.

Russel, S., & Norvig, P. (2016). *Artificial intelligence: A modern approach, Global Edition*.

Schweyer, A. (2018). Predictive analytics and artificial intelligence in people management. Working Paper. Incentive Research Foundation, McLean, VA.

Sohn, K., & Kwon, O. (2020). Technology acceptance theories and factors influencing artificial intelligence-based intelligent products. Telematics and Informatics, 47, 101324. https://doi.org/10.1016/j.tele.2019.101324., accessed Feb 12, 2024

Sumatra, J. M., Boncales, Z. T. P., & Yap, V. B. (2023). Organizational communication and employee differences: An organizational ethnography. *American Journal of Multidisciplinary Research and Innovation, 2*(1), 112–117. https://doi.org/10.54536/ajmri.v2i1.1240., accessed Mar 15, 2024

Vorm, E. S., & Combs, D. (2022). Integrating transparency, trust, and acceptance: The intelligent systems technology acceptance model (ISTAM). *International Journal of Human-Computer Interaction, 38*(18–20), 1828–1845. https://doi.org/10.1080/10447318.2022.2070107., accessed Apr 13, 2024

West, R. G. (2010). *Introducing communication theory analysis and application, Vol. 2*. New York, NY: McGraw-Hill.

**UTICAJI VEŠTAČKE INTELIGENCIJE NA DINAMIKU FORMALNE I NEFORMALNE UNUTRAŠNJE KOMUNIKACIJE U PRIVREDNIM ORGANIZACIONIM STRUKTURAMA**

**Rezime:** Dinamična evolucija savremenog poslovnog okruženja primorava organizacije da usvajaju napredne strategije kako bi unapredile efikasnost unutrašnje komunikacije. Unutrašnja komunikacija — koja obuhvata i formalne i neformalne oblike razmene među zaposlenima — predstavlja ključni element u oblikovanju organizacione kulture, podsticanju saradnje i održavanju funkcionalnosti organizacionih struktura. U tom kontekstu, veštačka inteligencija (VI) se sve više prepoznaje kao transformativni faktor sposoban da preoblikuje interne komunikacione procese. Ova studija istražuje uticaj komunikacionih alata, zasnovanih na VI, na dinamiku unutrašnje organizacione komunikacije, s posebnim osvrtom na percepcije zaposlenih i razliku između formalne i neformalne komunikacione prakse. Empirijska analiza temelji se na kvantitativnom istraživanju sprovedenom među 592 stalno zaposlenih, s ciljem procene poverenja u tehnologije VI, iskustava u njihovoj primeni i percipiranih promena u obrascima komunikacije koje proističu iz integracije VI u sisteme unutrašnje komunikacije. Rezultati ukazuju na visok nivo poverenja zaposlenih u alate podržane VI, naročito u kontekstu formalne komunikacije. Ispitanici su istakli poboljšanja u efikasnosti, pristupu informacijama i upravljanju vremenom. Ipak, nalazima su identifikovani i negativni aspekti, uključujući smanjenu interpersonalnu interakciju, depersonalizaciju komunikacije i oslabljenu emocionalnu rezonancu u radnim interakcijama. Članak doprinosi dubljem razumevanju uticaja digitalnih tehnologija na organizacionu komunikaciju — saznanju od posebnog značaja za menadžment i donošenje odluka u vezi s usvajanjem tehnologije.

**Ključne reči**: veštačka inteligencija (VI), unutrašnja komunikacija, formalna komunikacija, neformalna komunikacija, privredne organizacione strukture

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