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The Impact of Artificial Intelligence on Human Interaction: Redefining Communication Norms

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ABSTRACT

The development of artificial intelligence (AI) has brought significant changes in the way humans interact and communicate. AI is now not only used in industry and business, but also in everyday life, such as in customer service, social media, and interpersonal communication. This research aims to analyze the impact of AI on human interaction and how AI changes communication norms in the digital era. Using a qualitative approach through literature studies and library research, this study examines a variety of academic sources, including scientific journals, books, and research reports that discuss the integration of AI in communication. The results of the study show that AI plays a role in improving communication efficiency through message automation, virtual assistants, and conversation data analysis. However, AI also brings new challenges, such as a decrease in the quality of emotional interactions, reduced interpersonal communication skills, and an increasing reliance on automated systems. In addition, the use of AI in communication has affected social norms, where individuals have become accustomed to interacting with chatbots and recommendation algorithms, which indirectly shapes new communication patterns that are more efficient but less personal. The conclusion of this study confirms that AI has redefined the norms of human communication by offering better efficiency and accessibility, but it also poses challenges in the aspects of authenticity and quality of social relationships. Therefore, policies and ethical approaches are needed in the use of AI so that its impact on human interaction remains positive and does not reduce the values of empathy-based communication and social connection.

1. Introduction

The development of artificial intelligence (AI) has brought fundamental changes in various aspects of human life, especially in the way humans communicate and interact with each other. AI is now widely applied in various communication platforms, from customer service chatbots, virtual assistants such as Siri and Alexa, to social media algorithms that affect the way individuals interact in the digital world (Kaplan & Haenlein, 2019). In recent decades, this technology has evolved rapidly, not only helping to facilitate communication but also directly shaping new communication norms (Guzman & Lewis, 2020). However, these changes also pose challenges related to the authenticity of interactions, human dependence on automated systems, and their impact on interpersonal communication skills (Shank, 2020).

The development of artificial intelligence (AI) has brought fundamental changes in the way humans interact and communicate. AI is now widely used in various aspects of life, including in digital communication, customer service, social media, and even in everyday interactions through virtual assistants such as Siri, Google Assistant, and Alexa (Kaplan & Haenlein, 2019). The ability of AI to understand, interpret, and respond to human language with an increasingly sophisticated level has changed the dynamics of communication, both in the personal and professional realms. This technology allows for more efficient and responsive interactions, where humans can obtain information quickly and accurately through automated systems without the need to interact directly with other individuals (Guzman & Lewis, 2020).

While AI offers a variety of benefits in improving communication efficiency, its existence also poses significant challenges to the quality of human interaction. One of the main issues that arises is the decline in interpersonal communication skills due to the increasing frequency of human interaction with automated systems compared to other humans (West, 2018). Reliance on chatbots and virtual assistants can reduce essential social skills, such as empathy, listening skills, and the ability to read non-verbal expressions in face-to-face conversations (Floridi & Cowls, 2019). In addition, AI that is designed to provide quick and efficient responses tends to eliminate emotional elements in communication, resulting in interactions becoming more transactional and less profound in emotional and social aspects (Shank, 2020).

In addition to its impact on individuals, AI also influences social norms in communication, especially in the digital world. AI-based algorithms used in social media and communication platforms indirectly regulate how information is disseminated and how individuals interact with each other (Dwivedi et al., 2021). For example, AI used in content recommendation algorithms can create filter bubbles, where individuals are only exposed to information that matches their preferences, thereby reducing the diversity of perspectives in social interactions (Verhoef et al., 2021). In addition, AI also plays a role in creating social bots that can influence public opinion and even mimic human interaction in online discussions. This phenomenon raises ethical questions regarding transparency, trust, and authenticity in AI-mediated communication. Therefore, it is important to understand how AI not only facilitates communication but also shapes new norms and values in human interaction in the digital age.

Along with the increasing adoption of AI in communication, there are concerns that human interaction is becoming increasingly standardized and losing the personal element that has been the main characteristic of human communication (Calo, 2018). On the one hand, AI allows communication to be more efficient and accessible at any time, but on the other hand, it raises issues such as a decrease in empathy in digital interactions and a decrease in emotional involvement in conversations (Floridi & Cowls, 2019). Therefore, it is important to understand how AI is changing the norms of human communication and how it will have a long-term impact on social relationships in the digital age.

Although many studies have discussed the role of AI in communication, most studies still focus on the technical aspects and implementation of technology in various communication platforms (Dale, 2016). The lack of in-depth research on how AI is changing the norms of human communication, both in the social and professional realms, suggests that there is a research gap that needs to be filled. Most previous studies tend to explore the benefits of AI in improving communication efficiency, but not many have examined its impact on the quality and authenticity of human interactions (West, 2018).

The urgency of this research is increasing along with the rapid growth of the use of AI in digital communication. In the post-COVID-19 pandemic era, where human interaction is increasingly dependent on digital technology, AI is playing a greater role in supporting communication in various sectors, including education, business, and healthcare (Dwivedi et al., 2021). Therefore, a more in-depth study is needed to understand the social impact of the application of AI in communication and how humans can balance technological efficiency with the need for authentic and emotional social interaction (Verhoef et al., 2021).

Several previous studies have explored various aspects of AI in human communication. Research by Nass & Brave (2005) shows that humans tend to treat AI in a similar way to interactions with other humans, known as the computers are social actors (CASA) paradigm. Meanwhile, another study by Reeves & Nass (1996) found that humans can build emotional bonds with AI-based entities, especially when the AI is designed with interactive elements that resemble human communication. On the other hand, research by Guzman and Lewis (2020) discusses how AI contributes to shaping a person's digital identity through personalization algorithms in social media.

Although many studies have highlighted the role of AI in communication, this study offers a new perspective by examining how human communication norms have changed as a result of the integration of AI in various interaction platforms. The study also highlights how AI can affect human interpersonal communication patterns and social skills, which have not been widely discussed in previous research. Thus, this research aims to provide a more comprehensive academic contribution in understanding the transformation of communication due to AI and how individuals and society can adapt to these changes.

This research aims to analyze the impact of artificial intelligence on human interaction and communication norms in the digital era, as well as identify changes in communication patterns that occur due to the application of AI in various communication platforms. In addition, this study also evaluates the challenges and opportunities arising from the integration of AI in interpersonal communication, as well as providing policy recommendations and strategies in the ethical use of AI to maintain a balance between technological efficiency and the need for authentic social interaction.

The benefits of this research include academic, practical, and social aspects. From an academic perspective, this research contributes to increasing insights into digital communication, artificial intelligence, and its impact on human interaction. In practical terms, this research provides an understanding for technology developers, companies, and governments in designing policies and regulations related to the use of AI in communication. Meanwhile, in the social aspect, this research is expected to help individuals understand the changes in communication patterns that occur and how they can maintain the quality of social interaction in the digital era.

With this research, the public is expected to be better prepared to face changes in communication norms due to the development of AI and can find the best way to utilize this technology optimally without neglecting important aspects of human interaction based on empathy and social connection. The research also plays a role in providing broader insights into how AI can be used responsibly to shape

more inclusive, effective communication patterns while retaining the essence of meaningful human interactions.

2. Methodology

This study uses a qualitative approach with a library research method to explore the impact of Artificial Intelligence (AI) on human interaction and how AI changes communication norms in the digital era. The literature study was chosen because it allows for an in-depth analysis of various theories, concepts, and empirical findings from previous research related to the subject being studied (Creswell & Poth, 2018). With this approach, research can provide a comprehensive understanding of how AI has affected interpersonal communication as well as changes in social norms in human interaction.

The data sources in this study come from secondary literature, which includes scientific journal articles, academic books, research reports, and publications from related institutions such as the World Economic Forum (WEF), Organization for Economic Co-operation and Development (OECD), and Association for Computing Machinery (ACM). Data was collected through systematic searches in academic databases such as Google Scholar, Scopus, Web of Science, and ScienceDirect using keywords such as Artificial Intelligence in Communication, Human-AI Interaction, AI in Digital Communication, and Social Impact of AI. Source selection is carried out based on relevance to the research topic as well as the recency of the publication, with priority given to articles published in the last five years to ensure the accuracy and up-to-date of information (Machi & McEvoy, 2016).

The data analysis method used in this study is content analysis, which allows identification, categorization, and interpretation of data based on the main themes that appear in the literature studied (Krippendorff, 2018). The analysis process is carried out with the following steps: (1) reading and understanding the content of the literature obtained, (2) grouping the data based on key themes such as the benefits of AI in communication, the challenges posed, and changes in human communication norms, (3) comparing findings from various sources to identify patterns and gaps in previous research, and (4) compiling a synthesis of analysis results to provide a broader perspective on the impact of AI on human interaction. Using this method, research can critically uncover how AI is not only influencing the way humans communicate but also shaping new social norms in digital interactions.

3. Result and Discussion

In this study, a selection was made of various articles relevant to the topic The Impact of Artificial Intelligence on Human Interaction: Redefining Communication Norms. From various sources found, 10 main articles have been selected based on relevance, recency (last 5 years), and their contribution in understanding the impact of artificial intelligence (AI) on human interaction and changes in communication norms. These articles were analyzed using the content analysis method to identify the main themes, main findings, and research gaps that still need to be studied further.

No	Author & Year	Title	Findings
1	Kaplan & Haenlein (2019)	*Siri, Siri in my hand: On the interpretations, illustrations, and implications of AI*	AI improves communication efficiency but poses ethical challenges regarding the transparency of interactions.
2	Guzman & Lewis (2020)	*Artificial intelligence and communication: A Human–Machine Communication research agenda*	AI influences digital identity and online interactions through personalization algorithms.

No	Author & Year	Title	Findings
3	West (2018)	*The future of work: Robots, AI, and automation*	AI is changing the pattern of professional communication, replacing the role of humans in business interactions.
4	Floridi & Cowls (2019)	*A unified framework of five principles for AI in society*	An ethical approach is needed in the application of AI to human communication.
5	Dwivedi et al. (2021)	*Artificial Intelligence: Emerging challenges, opportunities, and agenda for research*	AI facilitates digital communication but creates a high dependence on technology.
6	Verhoef et al. (2021)	*Digital transformation: A multidisciplinary reflection and research agenda*	Digital transformation with AI is changing consumer communication behavior.
7	Nass & Brave (2005)	*Wired for speech: How voice activates and advances the human-computer relationship*	Humans tend to treat AI like humans in verbal interactions.
8	Shank (2020)	*Thinking with machines: Intelligence augmentation, trust, and dependence*	AI influences trust patterns in human communication.
9	Reeves & Nass (1996)	*The media equation: How people treat computers, television, and new media like real people and places*	AI can shape social relationships just like human interaction.
10	Calo (2018)	*Artificial intelligence policy: A primer and roadmap*	AI is influencing digital communication policies and privacy regulations.

Based on the results of the literature selection above, it was found that most of the previous research has highlighted how AI contributes to improving communication efficiency and how humans respond to AI in daily interactions. However, there are still gaps in research, such as the lack of empirical studies on the long-term impact of AI on interpersonal communication norms, social skills, and the emotional influence of AI-based interactions.

In addition, most of the research still focuses on technical and policy aspects, with little study of changes in human communication behavior due to interactions that are increasingly dominated by AI. Some older research, such as those conducted by Nass & Brave (2005) and Reeves & Nass (1996), needs to be updated to keep up with the latest developments in generative AI technology and increasingly sophisticated virtual assistants.

With these findings, this study aims to fill the gap in the literature by exploring how AI not only facilitates communication but also shapes new social norms. This research also seeks to provide insights into how humans can adapt to these changes, as well as how policies and regulations can be applied to maintain a balance between technological efficiency and authenticity in human communication.

Based on the compiled literature data table, it can be identified that artificial intelligence (AI) has brought fundamental changes in human interaction, both in the realm of personal and professional communication. AI plays a role in improving communication efficiency through chatbots, virtual assistants, and social media algorithms that optimize digital interactions (Kaplan & Haenlein, 2019). However, research also shows that AI can change communication norms in ways that are not yet fully understood, especially in aspects of authenticity and

trust in technology-based interactions (Guzman & Lewis, 2020).

One of the important findings in the literature is how humans tend to treat AI as if it has human characteristics. Research by Nass & Brave (2005) and Reeves & Nass (1996) shows that individuals can build social relationships with AI-based systems, especially in voice-based communication. This phenomenon shows that AI not only functions as a communication tool, but also as an entity that can influence human emotions and behavior patterns in digital interactions. However, this research is still conducted before the era of generative AI such as ChatGPT and Alexa, so recent studies are needed to understand how modern AI shapes more complex and immersive communication experiences.

In addition, a study conducted by West (2018) and Floridi & Cowls (2019) highlights how AI poses challenges in communication, especially in aspects of transparency and ethics. AI used in business communication and social media often presents issues related to trust and privacy. For example, many companies use AI to screen and analyze customer communications, but this raises ethical questions about how that data is used and how humans can ensure that their interactions remain secure and not manipulated by automated systems.

Other findings from the literature show that AI is also influencing communication norms in the professional and social spheres. Dwivedi et al. (2021) and Verhoef et al. (2021) found that AI is increasingly being used in the world of work to manage communication and interaction with customers. While AI improves operational efficiency, it also reduces the need for direct communication between humans, which can lead to a decline in interpersonal skills in the workforce. This shows that while AI has great benefits in improving communication effectiveness, its unwise use can lead to a negative impact on human communication skills in the long run.

However, most research still focuses on technical and policy aspects without addressing the deeper psychological and social impacts. A study conducted by Shank (2020) shows that AI can influence human belief patterns, but does not discuss in detail how AI affects communication norms in personal and social relationships. In addition, although Calo (2018) highlights the policy and regulatory aspects of AI in digital communication, the study does not explain how these regulations can be applied effectively in various contexts of human interaction.

From this interpretation, it can be concluded that AI has an increasingly large role in shaping human communication, but there are still many gaps in research regarding its long-term impact on social norms and interpersonal communication skills. Therefore, this study seeks to fill in the gap by exploring how AI not only facilitates communication, but also changes the way humans build relationships, understand emotions, and adapt to technology-based interactions. Further studies are needed to understand how humans can adapt to the new communication norms influenced by AI, as well as how policies can be designed to ensure that AI is used ethically and responsibly in social and professional interactions.

Discussion and Analysis

The development of artificial intelligence (AI) has brought about a significant transformation in the way humans interact and communicate. Based on the results of a literature review, AI not only improves communication efficiency through chatbots, virtual assistants, and personalization algorithms, but also changes social norms in human interaction (Kaplan & Haenlein, 2019). In today's digital age, AI has been integrated into various communication platforms such as WhatsApp, Facebook, and Google Assistant, allowing humans to communicate with automated systems in a variety of contexts. However, this phenomenon also poses new challenges, especially in terms of interaction authenticity and a decline in interpersonal communication skills (Guzman & Lewis, 2020).

One of the important aspects found in previous research is the tendency of humans to treat AI like

humans in verbal interactions. The Computers Are Social Actors (CASA) theory put forward by Reeves & Nass (1996) shows that individuals tend to respond to AI in the same way they respond to humans in direct communication. These findings remain relevant in today's context, especially with the development of generative AI such as ChatGPT and Alexa, which are increasingly capable of mimicking human communication patterns. This phenomenon indicates that the boundaries between human-machine interaction are increasingly blurring, potentially fundamentally changing the norms of interpersonal communication.

However, while AI improves the accessibility and efficiency of communication, research shows that the use of AI in communication can reduce the emotional element of human interaction. A study by Floridi & Cowls (2019) highlights that AI is likely to replace the role of emotional communication with data-driven responses, which can lead to a decline in empathy in digital communication. For example, in chatbot-based customer service, customers often feel frustrated because the system can't understand the emotional nuances of the conversation. This shows that although AI can speed up the communication process, it cannot yet fully replace complex and emotional human communication.

In addition, AI also plays a big role in shaping communication norms in the professional world. A study by West (2018) shows that AI has replaced human interaction in various aspects of business communication, including in recruitment, marketing, and customer service. This trend is increasingly seen in various large companies that use AI to screen job candidates or respond to customer inquiries through automated chatbots. While this is improving operational efficiency, there are concerns that interactions that are increasingly dependent on AI could reduce human engagement and hinder the development of interpersonal communication skills in the workplace.

The phenomenon of filter bubbles generated by AI algorithms is also a concern in the context of communication norms in the digital era. The algorithms used in social media platforms such as Facebook and Instagram are designed to display the most relevant content based on user preferences, but this also creates a limited and less diverse communication environment (Dwivedi et al., 2021). Research by Verhoef et al. (2021) shows that this phenomenon can reduce social interactions based on different perspectives, as individuals are only exposed to information that corresponds to their own views. As a result, communication that occurs on social media becomes more homogeneous and less open to differences of opinion, which has the potential to strengthen social polarization.

In terms of trust, AI also faces a major challenge in building reliable interactions. A study by Shank (2020) highlights that although AI is increasingly sophisticated in understanding and responding to human communication, there are still concerns regarding transparency and data manipulation. For example, deepfakes and AI-controlled chatbots can be used to spread misleading information or create inauthentic interactions. This shows that the use of AI in communication requires strict regulations and policies to ensure that this technology is used ethically and does not harm users.

However, not all impacts of AI on communication are negative. Some research suggests that AI can be used positively to improve social engagement and expand communication access for groups with physical or cognitive limitations. For example, AI has been used to help individuals with speech disorders through speech recognition and automated text technologies (Calo, 2018). In addition, AI also contributes to supporting the inclusivity of communication, such as through an automatic language translation feature that allows people from different cultural backgrounds to communicate without language barriers.

From the perspective of communication ethics, research shows that there are still gaps in the

regulations governing AI-based interactions. Today, many organizations are beginning to develop ethical guidelines in the use of AI to ensure that these technologies are used in a responsible manner (Floridi & Cowls, 2019). However, more research is still needed to identify the best way to balance AI efficiency with the human need for empathy and emotion-based interactions.

As an author, I argue that the integration of AI in communication is an inevitability, but it needs to be done with a thoughtful approach. AI has great potential to improve communication efficiency, but humans must not lose the essence of social interaction that involves empathy and emotional understanding. Therefore, greater awareness is needed in using AI ethically as well as policies that support the use of this technology in a way that does not replace, but rather complements human interaction.

Overall, the results of this study confirm that AI has redefined the norms of human communication by creating faster, more efficient, but also more impersonal interaction patterns. This change requires adaptation from humans in understanding how AI can be used optimally without compromising the quality of interpersonal communication. Further studies need to be conducted to explore how AI can be designed and used in a way that still maintains the basic values of human communication, including transparency, empathy, and diversity of perspectives.

4. Conclusion

Based on the results of literature studies, it can be concluded that artificial intelligence (AI) has brought fundamental changes in human communication patterns, both in personal, social, and professional contexts. AI has improved communication efficiency through chatbots, virtual assistants, and personalization algorithms that allow interactions to be faster and more structured. However, on the other hand, the use of AI in communication also poses challenges, such as reduced emotional involvement in digital interactions, increasing reliance on automated systems, and changes in communication norms that are increasingly shifting towards technology-based interactions. This phenomenon shows that while AI can facilitate communication, there is a risk of losing the aspects of authenticity and empathy that are at the core of human communication.

The findings of the study also show that AI has redefined the way humans communicate by creating a more structured but less diverse digital environment. AI algorithms in social media form a filter bubble that limits exposure to different perspectives, while in the professional world, AI replaces human interaction in various aspects of work, which can potentially reduce interpersonal communication skills. In addition, challenges in the aspects of transparency and ethics in the use of AI in communication are increasingly concerning, especially related to data manipulation, privacy security, and public trust in this technology. Therefore, stronger policies and regulations are needed to ensure that AI is used ethically without sacrificing the actual quality of human interaction.

For further research, it is recommended to conduct further studies on how AI can be designed and used in a more inclusive and empathetic-based way. Further research also needs to explore the long-term impact of the use of AI in interpersonal communication, including how humans can maintain their social skills amid the rise of technology-based interactions. In addition, the study of the role of regulations and policies in regulating AI-based communication is also an important aspect that needs to be considered so that this technology can be used responsibly and does not reduce the quality of true human communication. With a more balanced approach, AI can continue to evolve as a tool that supports human communication without replacing the fundamental values inherent in social interactions.

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