



Voice-Activated AI and The Evolution of Communication Etiquette

Sesle Etkinleştirilen Yapay Zekâ ve İletişim Adabının Evrimi

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ABSTRACT: Voice-activated artificial intelligence (AI) assistants, such as Siri, Alexa, and Google Assistant, are becoming increasingly embedded in everyday life, reshaping human-technology interactions and influencing norms of interpersonal communication. This study explores the effects of AI-assisted interactions on traditional communication etiquette, with a focus on how these systems shape user expectations around politeness, patience, and conversational engagement in human interactions. Grounded in the media equation theory—which suggests that individuals instinctively apply social rules to machines—this paper examines how frequent use of voice assistants may alter users' tolerance for conversational delays, levels of empathy, and responsiveness to nuanced social cues. The study also addresses the ethical implications of AI assistants on privacy, emotional dynamics, and behavioral conditioning. By investigating how digital etiquette, developed through voice assistant interactions, translates to interpersonal settings, this research contributes to a deeper understanding of the shifting relationship between human-machine communication and its social ramifications. Findings indicate that as AI integration becomes more prevalent, these applications are not only influencing human-machine interactions but also subtly reshaping interpersonal communication norms in a digitally mediated world.

Key Words: Voice-Activated AI Assistants, Interpersonal Communication Norms, Digital Etiquette, Human-Machine Interaction, Communication Ethics.

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Öz: Siri, Alexa ve Google Asistan gibi sesle etkinleştirilen yapay zekâ (YZ) asistanları, günlük yaşama giderek daha fazla yerleşiyor, insan-teknoloji etkileşimlerini yeniden şekillendiriyor ve kişilerarası iletişim normlarını etkiliyor. Bu çalışma, YZ destekli etkileşimlerin geleneksel iletişim görgü kuralları üzerindeki etkilerini, bu sistemlerin insan etkileşimlerinde nezaket, sabır ve konuşma katlımı etrafındaki kullanıcı beklentilerini nasıl şekillendirdiğine odaklanarak araştırıyor. Bireylerin içgüdüsel olarak sosyal kuralları makinelere uyguladığını öne süren medya denklemi teorisine dayanan bu makale, sesli asistanların sık kullanımının kullanıcıların konuşma gecikmelerine olan toleransını, empati seviyelerini ve nüanslı sosyal ipuçlarına yanıt verme yeteneğini nasıl değiştirebileceğini inceliyor. Çalışma ayrıca YZ asistanlarının gizlilik, duygusal dinamikler ve davranışsal koşullanma üzerindeki etik etkilerini de ele alıyor. Sesli asistan etkileşimleriyle geliştirilen dijital görgü kurallarının kişilerarası ortamlara nasıl yansıdığını araştırarak, bu araştırma insan-makine iletişimi ve bunun sosyal sonuçları arasındaki değişen ilişkinin daha derin bir şekilde anlaşılmasına katkıda bulunuyor. Bulgular, AI entegrasyonu daha yaygın hale geldikçe, bu uygulamaların yalnızca insan-makine etkileşimlerini etkilemekle kalmayıp aynı zamanda dijital olarak aracılık edilen bir dünyada kişilerarası iletişim normlarını da gizlice yeniden şekillendirdiğini göstermektedir.

Anahtar Kelimeler: Sesle Etkinleştirilen AI Asistanları, Kişilerarası İletişim Normları, Dijital Etiket, İnsan-Makine Etkileşimi, İletişim Etiği.

INTRODUCTION

In recent years, voice-activated artificial intelligence (AI) assistants such as Apple's Siri, Amazon's Alexa, and Google Assistant have become integral parts of daily life, profoundly influencing how individuals engage with technology and, consequently, altering established norms of interpersonal communication. These AI assistants utilize natural language processing (NLP) and machine learning to simulate conversational interactions, enabling users to perform tasks, retrieve information, and control smart devices with voice commands. While these systems enhance convenience and accessibility, they also introduce complex sociocultural and ethical considerations regarding human-technology relationships (Luger & Sellen, 2016; Nass & Brave, 2005). As AI assistants become more advanced, users increasingly perceive them as quasi-social entities, attributing communication behaviors and expectations traditionally reserved for human interactions (Purinton et al., 2017). Research indicates that these interactions often lead to anthropomorphization, wherein users subconsciously treat AI systems as social actors (Guzman, 2018). This shift extends beyond human-AI communication dynamics; it also influences interpersonal communication practices, subtly shaping users' social behaviors and expectations in human relationships (Reeves & Nass, 1996). The phenomenon is grounded in the media equation theory, which posits that individuals apply human social rules when interacting with computers and digital agents, responding to them as if they were human communicators (Reeves & Nass, 1996). One of the most observable impacts of voice AI is the adaptation of politeness norms in human-machine interactions. Studies show that users often use polite language, such as "please" and "thank you," when interacting with AI assistants, even though they recognize these entities lack consciousness (Nass, 1999). However, concerns have been raised that habitual use of directive language and transactional communication styles with AI may influence human-to-human communication norms, potentially leading to a decline in politeness and empathy in interpersonal exchanges

(Wang et al., 2020). Additionally, research suggests that frequent interaction with AI assistants, which are designed for immediate response, can lead to "interactional habituation," where users develop lower tolerance for delays, ambiguity, and complex social cues in human interactions (Guzman, 2018; McStay, 2018).

Furthermore, the affective responses elicited by voice AI assistants highlight the concept of "emotional labor" in human-technology interactions. Discuss how users may develop emotional attachments to these assistants or experience frustration when their expectations are unmet. This aspect of AI-human interaction underscores the psychological and social implications of AI-mediated communication (Roemmich, R., & Roesler, E. 2023). Additionally, ethical concerns arise regarding the persuasive potential of AI assistants, as they are designed to personalize interactions based on user data, raising questions about privacy, surveillance, and the manipulation of user behavior (Zuboff, 2019). Despite the rapid proliferation of voice-activated AI assistants, there remains a significant gap in understanding how these technologies reshape fundamental aspects of interpersonal communication. Prior research has largely focused on usability, technical efficiency, and user satisfaction, while fewer studies have critically examined the broader implications of AI-mediated communication on human social behaviors and conversational norms. This study aims to address this gap by exploring how voice AI assistants influence politeness, social expectations, and power dynamics in communication. Specifically, the research investigates whether frequent interactions with AI assistants encourage shifts in conversational etiquette, reduce empathy, and contribute to an increasing preference for directive, transactional dialogue over nuanced human interaction. This article aims to examine the transformation of interpersonal communication norms through the lens of voice-based AI assistant interactions. By analyzing the normative shifts emerging from human-AI communication, this study contributes to a nuanced understanding of how voice-activated technologies reshape social behaviors and expectations. The findings are expected to provide insights into the interplay between digital etiquette and interpersonal relationships, ultimately reflecting on the implications of AI-human interaction for the future of communication in a digitally mediated world. Additionally, by situating AI interactions within broader communication paradigms, this study offers a critical perspective on how digital assistants may influence long-term social interaction patterns. As AI-driven communication continues to evolve, understanding these transformations is essential for anticipating their effects on human connection, cooperation, and engagement in both personal and professional settings.

1. Transformation of Interpersonal Communication Norms

Digital technologies are continuously transforming interpersonal communication norms. In particular, the widespread adoption of voice-activated artificial intelligence (AI) assistants has emerged as a new phenomenon affecting traditional interpersonal communication practices. AI systems increasingly exhibit human-like responses during

interactions, leading individuals to perceive these systems as social actors. This transformation can be explained through the media equation theory. The media equation theory, developed by Reeves and Nass (1996), posits that individuals unconsciously apply social rules from human-human communication when interacting with media and AI systems. According to this theory, people respond to digital interfaces and AI systems as if they were engaging with human communicators. This phenomenon is particularly evident in interactions with voice AI assistants. For instance, when a user asks Alexa or Siri a question, they may unconsciously adopt polite language despite knowing that the system is merely an algorithm. This behavior can be attributed to the evolutionary predisposition of the human brain to engage in social interactions. Humans instinctively evaluate voice-responsive systems as social entities at a subconscious level. Within this framework, interactions with AI assistants contribute to the reshaping of interpersonal communication norms. In the context of media equation theory, a critical question arises regarding how politeness norms evolve in human-machine interactions. Studies indicate that while users occasionally employ polite language when communicating with AI assistants, they often shift toward a more direct and command-based style once they acknowledge the system's lack of human emotions (Nass, C., & Moon, Y. 2000). This shift may extend to human interactions, causing individuals to adopt a more directive and authoritative communication style. Frequent interactions with AI systems may lead users to generalize this communication pattern to human relationships, reducing empathy and fostering a transactional mode of interaction. This phenomenon may be particularly pronounced among children and young individuals, as they learn social communication norms largely through environmental interactions. The increasing prevalence of AI-mediated interactions could lead future generations to internalize shorter, more direct, and lower-context communication styles. Another significant outcome of the media equation theory is the transformation of interpersonal communication habits through interactions with AI. Voice AI assistants are designed to provide immediate responses and prioritize efficiency in fulfilling user requests. This instant feedback mechanism fosters a phenomenon known as interactional habituation (Guzman, 2018).

Individuals who develop interactional habituation may become less tolerant of delays and pauses in human communication. For example, a person frequently interacting with Siri or Google Assistant may expect immediate responses in human conversations, leading to increased impatience and reduced tolerance for natural conversational flow and ambiguity. This shift can negatively impact empathy, increasing misunderstandings and social tensions in interpersonal interactions. Voice AI systems inherently exhibit a submissive role toward users, always providing responses to user commands. Unlike human relationships, AI interactions do not involve social hierarchies, status differences, or emotional reciprocity. As a result, users' perceptions of power dynamics may change. For instance, individuals who

frequently issue commands to AI assistants may develop a more demanding and less empathetic communication style in real-life interactions. Studies suggest that children and young users extensively interacting with AI systems are more likely to adopt a controlling and less respectful tone when communicating with people (West et al., 2019). This shift may lead to a decline in politeness and mutual understanding in interpersonal relationships. With the growing prevalence of voice AI assistants, interpersonal communication norms are undergoing significant transformations. From the perspective of the media equation theory, individuals unconsciously perceive AI interactions as social relationships, influencing real-world communication practices. The key components of this transformation include the evolution of politeness norms, the emergence of interactional habituation, the decline in empathy, and the reconfiguration of power dynamics. Future research should explore the long-term consequences of these shifts in greater depth. Particular attention should be given to the impact on children and young individuals, examined through the lens of linguistic and communication sciences. Investigating the societal implications of these new norms is crucial for understanding how AI-mediated interactions reshape individuals' perceptions of the social world. This research agenda is not only relevant to technology studies but also holds critical significance in the fields of communication, psychology, and sociology.

2. Tendency to Attribute Personality to AI Assistants

The interaction with voice-activated AI assistants has increasingly led users to attribute personality traits to these systems, a phenomenon deeply rooted in the human psychological tendency toward "personification" or "anthropomorphism." The media equation theory proposed by Reeves and Nass (1996) suggests that people tend to apply social rules when interacting with computers and digital agents, perceiving them as quasi-social beings. This tendency results in users assigning emotions, thoughts, or personality traits to AI assistants, leading to more human-like interactions with these systems (Luger & Sellen, 2016). Recent research has reinforced this perspective, demonstrating how AI self-representation further drives anthropomorphism. Van Es and Nguyen (2024) highlight how AI-generated language in assistants like ChatGPT fosters misleading perceptions about AI's cognitive abilities, reinforcing users' inclination to perceive them as social agents.

The inclination to attribute personality to AI assistants significantly influences users' language, tone, and expectations. Purington et al. (2017) observed that users interacting with voice assistants like Alexa often consider these systems as a type of "digital companion," assigning them specific social roles. Such a perspective transforms the way users perceive these assistants, treating them not only as functional tools but also as entities with which they form a certain emotional bond (Lopatovska & Williams, 2018).

Further studies indicate that this tendency extends to user frustration. Gambino et al. (2020) found that when AI assistants fail to meet expectations, users often display frustration or even anger, mirroring human reactions to interpersonal disappointment. These findings suggest that users increasingly treat AI as socially accountable entities, reinforcing anthropomorphic engagement patterns. Assigning social roles and anthropomorphizing AI assistants also affect how users interact with these systems and, potentially, how they relate to people in real-life settings. In a study by Gambino et al. (2020), it was found that users express "frustration" or even "anger" when AI assistants fail to meet their expectations, displaying responses similar to those they might have toward human shortcomings. This phenomenon highlights the development of human-like emotional reactions toward AI, influenced by users' tendency to treat these machines as social entities. Moreover, emerging ethical concerns focus on the long-term implications of these anthropomorphic interactions, particularly in child development. A recent study from the University of Cambridge (2024) warns that children increasingly perceive AI assistants as sentient entities, forming trust relationships with them that may distort their understanding of human trust and empathy. Furthermore, the tendency to attribute personality to AI assistants raises ethical concerns, especially regarding children's empathy and trust in AI, which could have lasting effects on their interpersonal relationships. West et al. (2019) highlighted that children's engagement with these assistants could impact their understanding of trust and empathy, potentially altering these fundamental concepts in human relationships. Adults, on the other hand, may use such assistants as "companions" to alleviate loneliness, prompting a need for further analysis of the social consequences of human-AI relationships and their effects on real-life interpersonal interactions (Guzman, 2018).

These developments suggest that AI assistants are increasingly perceived not only as functional tools but as potential participants in social and emotional life. The long-term social implications of this anthropomorphization are critical in shaping future interpersonal norms and human relational expectations, necessitating further interdisciplinary research into the cognitive and emotional dimensions of AI-human interactions.

3. Communication Psychology and Power Dynamics

The growing integration of voice-activated AI assistants into daily life has catalyzed new dynamics in communication psychology, especially in terms of perceived power and authority within human-machine interactions. AI assistants, designed to follow commands instantly, establish an interactional model where the user inherently occupies a position of authority, a dynamic that can subtly influence users' expectations and communication styles in broader social contexts (Lopatovska & Williams, 2018). The power imbalance embedded in these interactions—where the AI unconditionally complies—creates a "conditioning effect" that may shape users'

tolerance for autonomy, dissent, and negotiation when interacting with others (Nass & Brave, 2005). Research on human-machine communication has found that repeated engagement with compliant AI agents may impact users' approach to real-world relationships. Nass and Brave (2005) found that users might unconsciously transfer the expectation of prompt compliance to human interactions, potentially fostering a transactional mindset in social exchanges.

Recent research further supports these claims by illustrating how AI-mediated interactions reinforce implicit power hierarchies. Mahmood and Huang (2023) investigated how users' interactions with AI assistants differ based on perceived gender biases. Their findings reveal that male participants were significantly more likely to interrupt AI assistants, regardless of whether the assistant had a male or female voice. This behavior suggests that power structures ingrained in human interactions may be mirrored in AI engagements, reinforcing existing social dynamics. This conditioning effect, particularly prevalent in interactions characterized by directive language, may contribute to what McStay (2018) describes as a "reduction in empathy," as users become accustomed to exchanges that do not require acknowledgment of others' needs or perspectives. Such findings suggest that AI-driven interactions might encourage communication patterns that downplay the need for collaborative dialogue and mutual decision-making.

Moreover, the psychological impact of repeated exposure to AI assistants has been linked to users' self-perception and social behavior. Wenzel et al. (2023) examined the effects of speech recognition errors in AI interactions and found that frequent inaccuracies led to increased self-consciousness and decreased self-esteem among marginalized user groups. These findings suggest that AI technologies do not function in a social vacuum; rather, they actively shape user identity, confidence, and social agency. The notion of "social dominance" is also relevant to the psychological framework of human-AI interactions. Purington et al. (2017) observed that users often experience a heightened sense of control over AI assistants, reinforcing a perception of authority that may carry over to social interactions, potentially affecting users' perceptions of authority and assertiveness in human relationships. Given that AI assistants are programmed to respond with politeness and compliance, users may develop habits that undermine the value of negotiation and compromise, which can affect interpersonal exchanges by reducing sensitivity to social hierarchies and mutual respect (Gambino & Sundar, 2020).

Furthermore, children and young adults, who frequently interact with voice-activated assistants, may be particularly susceptible to shifts in power perception. West, Kraut, and Chew (2019) highlight that prolonged interaction with compliant AI agents can shape younger users' conceptualizations of authority, potentially challenging their adaptation to real-life social hierarchies where power dynamics are

more complex and demand empathy and mutual understanding. Studies from developmental psychology indicate that children engaging with AI assistants frequently may develop altered expectations regarding authority figures, impacting how they engage in peer interactions and respond to authority in educational settings. This underscores the need for further interdisciplinary studies examining the developmental implications of AI socialization on young users. These findings underscore the importance of examining the long-term psychological implications of human-machine power dynamics, especially in regard to how individuals perceive authority, empathy, and tolerance in human relationships. Understanding these shifts is critical for anticipating how prolonged AI engagement may reshape social norms and expectations concerning power, cooperation, and respect within human communication.

4. Data Privacy and Ethical Questions

The increasing use of voice-activated AI assistants presents pressing ethical and privacy concerns, given that these systems continuously collect, store, and analyze vast amounts of personal information.

Designed to listen for activation cues, voice assistants may capture more data than users realize, including voice patterns, location information, and behavioral preferences, which are sometimes shared with third parties or utilized for targeted advertising without fully informed consent (Wang, Norcie, & Schaub, 2020; Lau, Zimmerman, & Schaub, 2018). This pervasive data collection raises significant ethical questions about user autonomy and the long-term impact of such data retention practices. One core ethical challenge associated with voice-activated assistants is the issue of "informed consent".

Many users remain unaware of the types and extent of data collected or how it is subsequently used. Zuboff (2019) refers to this phenomenon as "surveillance capitalism," a system in which personal data becomes a commodified asset, often without comprehensive user understanding, thus raising concerns about user autonomy and potential exploitation. This opacity can contribute to growing distrust in digital platforms, as users become increasingly cautious about how their information is managed (McStay, 2018). In light of these concerns, researchers and policymakers advocate for stricter data protection frameworks, emphasizing the need for companies to ensure transparency in data collection practices and secure explicit consent from users before any personal information is gathered or shared (Pew Research Center, 2019). Further compounding these ethical concerns is the vulnerability of personal data stored within voice assistant systems. Numerous studies have highlighted the susceptibility of these devices to security breaches, which could grant unauthorized access to sensitive information (Kumar et al., 2018). This risk is intensified by inconsistent security updates and a lack of transparency from

manufacturers regarding the nature of stored data, leaving users potentially exposed to exploitation (Shklovski et al., 2014). Another ethical consideration in voice assistant technology is “algorithmic bias”. The machine learning algorithms that power these systems can unintentionally replicate and reinforce existing societal biases, as they rely on training data that may not represent diverse user populations (West et al., 2019).

Research has shown that certain voice assistants respond inconsistently to voices based on accents, gender, or other distinguishing features, potentially perpetuating disparities in access and service quality (Buolamwini & Gebru, 2018). Such biases raise critical questions about fairness and inclusivity, highlighting the need for ethical oversight to ensure equitable AI interactions. These challenges around privacy, security, and bias underscore the necessity for comprehensive guidelines governing the collection, storage, and utilization of data by voice-activated AI systems. As these technologies become more embedded in daily life, it is essential to strike a balance between technological advancement and ethical accountability, fostering a digital landscape where user rights and trust remain protected.

5. Cultural Differences

Cultural diversity significantly shapes how voice-activated AI assistants are perceived, adopted, and used across different societies. Interactions with AI particularly in voice-driven systems often mirror cultural values and communication styles, which vary extensively across regions and societies. Research suggests that individuals from high-context cultures, where indirect communication and a deep contextual understanding are prioritized (as seen in societies like Japan or South Korea), demonstrate interaction patterns with AI that differ markedly from those in low-context cultures, where communication tends to be direct and explicit (such as in the United States or Germany) (Hall, 1976; Choi et al., 2020). These distinctions underscore the ways in which AI interactions could be modified or customized to resonate with particular cultural expectations and communication norms.

For instance, Nass and Brave (2005) observed that users from collectivist cultures, where social harmony and politeness are highly valued, tend to address AI assistants with greater formality and respect. Conversely, users in individualistic cultures, which often prioritize efficiency and directness, engage with AI in a more functional, task-oriented manner. Such cultural divergence influences not only the language and tone employed in these interactions but also shapes expectations regarding AI responsiveness and perceived emotional intelligence. Users from collectivist contexts might anticipate an “empathetic” style of interaction, reflecting a broader preference for respectful and harmonious exchanges, even in digital environments (Lim et al., 2020).

Recent studies further highlight the depth of these cultural differences in AI interaction. Seaborn et al. (2024) conducted a comparative analysis between Japanese and American users' envisioned dialogues with voice assistants. Their findings reveal that Japanese users preferred more polite, indirect responses, reinforcing traditional social hierarchies, whereas American participants exhibited a preference for direct, efficiency-driven interactions. This suggests that voice assistant designers should implement cultural adaptability to optimize user engagement across diverse regions.

Furthermore, the predominantly Western origin of AI system design, rooted in low-context, individualistic cultures, can lead to instances of misalignment or dissatisfaction among users from non-Western societies. Shinohara and Wobbrock (2011) argue that a cultural mismatch in technology design can generate feelings of alienation or frustration, as AI interactions may not align with communication norms esteemed in high-context cultures.

Liu et al. (2024) expanded on this by investigating public attitudes toward AI conversational agents in China and the United States. Their study found that Chinese users tend to perceive conversational AI more positively, associating it with emotional and social benefits, while American participants focused on functionality and efficiency. These contrasting perceptions reinforce the need for AI personalization that accounts for regional differences in expectations and technological trust.

For example, voice assistants frequently struggle with understanding accents and cultural references outside of Western norms, inadvertently reinforcing cultural biases and restricting accessibility (Buolamwini & Gebru, 2018).

Recent research by Wenzel and Kaufman (2023) explores how cultural biases in AI error handling disproportionately affect multilingual users. Their study identifies that users who primarily speak non-Western languages experience higher frustration and disengagement due to misrecognition of their speech patterns. The study proposes culturally sensitive repair mechanisms to improve AI's responsiveness to diverse linguistic communities.

Gendered language and cultural expectations further influence AI interactions across different societies. West, Kraut, and Chew (2019) have noted that in certain cultures, voice assistants with female voices may align with societal expectations, whereas in others, such gendered design choices may perpetuate stereotypes. This gendered perception is particularly pronounced in societies where traditional gender roles are deeply ingrained, underscoring the importance of designing culturally sensitive AI that respects diverse cultural and societal values.

Furthermore, West, Kraut, and Chew (2019) examined gendered perceptions of AI in different cultural settings. Their research indicates that while Western societies increasingly challenge traditional gender roles, some cultures maintain strong associations between female-voiced assistants and subordinate service roles. This highlights the ethical responsibility of AI developers to ensure voice-based AI systems do not reinforce outdated stereotypes but instead promote gender-neutral interaction models (West, Kraut, & Chew, 2019).

These variations across cultures emphasize the need for culturally adaptive AI systems capable of tailoring interactions to meet the norms and expectations of varied user demographics. Recognizing and accommodating cultural diversity within AI interaction design not only enhances user satisfaction but also contributes to the creation of inclusive, respectful technologies that reflect and respect global standards of communication.

6. Future Projections

The increasing integration of voice-activated AI assistants into daily life suggests a future where these systems will continue to evolve, becoming more socially, culturally, and contextually aware. As AI technology advances, researchers foresee several potential developments that could redefine human-machine interaction and its impact on society.

One prominent trend involves AI assistants becoming more context-sensitive, adapting to the nuances of conversation, emotional tone, and situational context to provide a more human-like interaction (Guzman, 2018; Nass & Brave, 2005). This advancement would allow AI systems to interpret non-verbal cues, such as pauses or variations in tone, making interactions more intuitive and responsive to user needs (McStay, 2018). The concept of “adaptive AI” that learns user preferences and adjusts its behavior accordingly is likely to deepen, as advances in machine learning and natural language processing (NLP) enable AI to become increasingly personalized. Purington et al. (2017) suggest that future AI assistants may develop “relationship memory,” where they remember previous interactions to build continuity, resembling interpersonal relationships. This capability would not only enhance user experience but also raise ethical concerns about data privacy and consent, as these assistants store and analyze more personal information over time (Zuboff, 2019). Another significant future trajectory is the development of “cross-cultural AI” that can navigate and respect diverse cultural norms, making technology more accessible to a global audience. Current AI systems are primarily designed with Western-centric language and social norms, which can create barriers for users from different cultural backgrounds. Future advancements may involve incorporating culturally sensitive algorithms that can adapt to local languages, accents, and social expectations, ultimately fostering inclusivity in digital spaces (Choi et al., 2020; Shinohara &

Wobbrock, 2011). Furthermore, as voice-activated AI assistants become more prevalent, they are expected to influence “human communication patterns and social behavior”. Studies suggest that individuals may begin to adopt more direct and transactional communication styles as a result of frequent interactions with AI, where expectations for instant compliance and limited emotional response are normalized (West et al., 2019; Wang, Norcie, & Schaub, 2020). This shift could have broader implications for interpersonal communication, particularly in terms of empathy and patience, as people increasingly adapt to the efficiency-driven nature of AI communication (Gambino et al., 2020). In the long term, AI may also play a critical role in education, healthcare, and professional settings, where voice-activated systems can act as virtual advisors or assistants, enhancing productivity and offering personalized support (Kumar et al., 2018). However, as these systems become more autonomous, questions surrounding ethical decision-making and accountability will become increasingly pertinent, particularly as AI takes on roles traditionally reserved for human experts (Zuboff, 2019). In conclusion, the evolution of voice-activated AI assistants is poised to bring about profound changes in technology, communication, and society. While these advancements hold promise for creating more personalized, inclusive, and context-aware AI systems, they also underscore the need for continued research and regulatory oversight to ensure ethical and socially responsible development.

CONCLUSION

Despite the rapid proliferation of voice-activated AI assistants, there remains a significant gap in understanding how these technologies reshape fundamental aspects of interpersonal communication. Prior research has largely focused on usability, technical efficiency, and user satisfaction, while fewer studies have critically examined the broader implications of AI-mediated communication on human social behaviors and conversational norms. This study aims to address this gap by exploring how voice AI assistants influence politeness, social expectations, and power dynamics in communication. Specifically, the research investigates whether frequent interactions with AI assistants encourage shifts in conversational etiquette, reduce empathy, and contribute to an increasing preference for directive, transactional dialogue over nuanced human interaction.

This study explored the evolving role of voice-activated AI assistants in reshaping interpersonal communication norms. The primary aim was to examine how these technologies influence conversational structures, politeness conventions, and power dynamics in human interaction. By integrating perspectives from communication psychology, sociocultural theory, and ethical considerations, this research identified critical patterns that illustrate the long-term impact of AI-mediated communication on human relationships.

Findings indicate that the habitual use of AI assistants contributes to a reconfiguration of communication styles, leading to a preference for directive, efficiency-driven exchanges. The immediacy and predictability of AI responses condition users to expect rapid, transactional interactions, potentially diminishing their tolerance for ambiguity, conversational delays, and the nuanced reciprocity essential in human dialogue. This transformation raises concerns about the gradual decline of cooperative, context-sensitive communication practices, particularly among individuals who frequently interact with AI systems.

Beyond structural changes in conversational engagement, this study also highlights the increasing anthropomorphization of AI assistants, revealing a shift in the way users perceive social presence in human-machine interaction. As users attribute personality traits and emotional capacities to AI, the boundaries between human and technological communication become increasingly blurred. While this phenomenon enhances engagement and interaction fluency, it also raises ethical questions regarding emotional dependency on AI and its implications for social bonding, especially among vulnerable or socially isolated populations.

Cultural considerations further amplify the complexity of these changes, as different societies exhibit distinct interactional patterns with AI, reflecting broader social norms and values. The study underscores the necessity of culturally adaptive AI designs that align with diverse linguistic and social expectations. Without such adjustments, AI systems risk reinforcing biases, fostering alienation among non-Western users, and exacerbating global digital inequalities.

Furthermore, this research underscores the need for robust regulatory frameworks to address the ethical and privacy challenges posed by AI-mediated communication. As AI assistants increasingly integrate into daily life, concerns regarding data security, informed consent, and user autonomy must be prioritized. Transparent AI governance models are essential to mitigating algorithmic biases, protecting personal data, and ensuring ethical AI deployment that aligns with societal well-being.

Looking forward, the findings of this study suggest that future research should focus on the cognitive and behavioral transformations resulting from prolonged AI engagement. The intersection of AI and human communication demands continuous interdisciplinary inquiry, particularly concerning its implications for digital literacy, emotional intelligence, and evolving social expectations. As AI continues to shape the communicative landscape, fostering ethical, adaptable, and human-centric AI systems will be critical in preserving the depth, complexity, and cooperative nature of human interaction.

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