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SOCIAL BEHAVIOURAL CHANGES THROUGH CONVERSATIONAL AI AND DIGITAL COMPANIONSHIP

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ABSTRACT

Conversational artificial intelligence (AI) and digital companionship are transforming how individuals communicate, seek emotional support, develop social connections, and engage with technology in everyday life. AI chatbots and virtual companions can provide personalized conversations, immediate responses, and opportunities for self-expression, creating new forms of social interaction beyond traditional human communication. These developments may influence users' communication habits, emotional attachment, perceptions of companionship, and participation in real-world relationships. Chaturvedi et al. (2023) identified social companionship as an important and expanding area of conversational AI research, involving emotional bonds, social presence, and consumer relationships. Recent studies have further explored how AI attachment develops and how companion chatbots may influence loneliness and wellbeing (Hu et al., 2025; Ho et al., 2025). This article examines social behavioural changes associated with conversational AI and digital companionship through a review of existing scholarly literature. It considers potential benefits, including accessible companionship and emotional expression, alongside concerns about excessive dependence, privacy, unrealistic expectations, and reduced human interaction. The article adopts a literature-based approach and organizes existing evidence around social interaction, emotional attachment, behavioural adaptation, and responsible technology use. It argues that conversational AI may complement human social relationships when used appropriately, but its long-term effects require further investigation. Responsible design and balanced engagement are essential to ensure that digital companionship supports rather than undermines meaningful human connection.

KEYWORDS

Conversational AI, digital companionship, social behaviour, artificial intelligence, emotional attachment, human–AI interaction, social relationships.

INTRODUCTION

Conversational artificial intelligence has become an increasingly visible part of contemporary social life. AI chatbots, virtual companions, and generative AI applications allow users to exchange messages, ask questions, discuss personal concerns, and receive responses that resemble ordinary conversation. Unlike conventional digital tools that primarily provide information or facilitate communication between people, conversational AI can maintain interactive exchanges and adapt its responses to the user's input. As a result, some users increasingly engage with AI systems not only for practical assistance but also for companionship, emotional expression, and perceived social support. Chaturvedi et al. (2023) examined the research landscape of social companionship with conversational agents and identified major themes involving social presence, emotional bonds, and relationships between users and AI. This development raises important questions about how conversational technologies influence social expectations, everyday behaviour, and the meaning of companionship in contemporary society. One significant change associated with conversational AI is the emergence of new forms of social interaction. Users may communicate with AI systems during periods of boredom, loneliness, stress, or limited social contact. These interactions can

offer convenience because conversational agents may be available outside normal social hours and can respond without the interpersonal pressures that sometimes accompany human conversations. Ho et al. (2025), in a systematic review of romantic AI companions, identified perceived emotional connection, social support, stress-relieving companionship, and opportunities for personal growth among the potential benefits reported in the literature. However, the review also identified concerns involving over-reliance, privacy, manipulation, and possible erosion of human relationships. These findings indicate that digital companionship may provide perceived social value while also creating behavioural and ethical challenges. Digital companionship may also influence the development of emotional attachment to AI systems. Conversational agents can use personalized language, remember aspects of previous interactions, and respond in ways that users perceive as attentive or supportive. Such features may encourage familiarity and repeated engagement, potentially changing how users allocate their time and emotional attention. Hu et al. (2025) investigated attachment to social companion AI through a two-stage mixed-method study and proposed that attachment develops through users' attitudes toward relationships, their evaluation of the perceived value of interaction, and the ways attachment is expressed. Their findings also highlighted potential benefits and costs associated with these relationships. This research suggests that attachment to AI should be examined as a social and psychological process rather than simply as a measure of technology usage. Another important issue is the relationship between digital companionship and loneliness. Some individuals may turn to conversational AI when they lack opportunities for social interaction or find it difficult to express themselves to other people. AI systems may offer a convenient space for conversation and a subjective sense of being heard. Liu et al. (2025) examined different patterns of companion chatbot use and their relationship with loneliness, highlighting the heterogeneous experiences of users. Their research indicates that the consequences of AI companionship cannot be understood through a single general assumption about all users. The impact may differ according to the reasons for using a chatbot, the nature of the interaction, and individual social circumstances. Therefore, digital companionship should be evaluated in relation to users' wider social lives rather than in isolation.

Conversational AI may also affect users' social expectations by making interaction more predictable and convenient. Unlike human relationships, which involve mutual responsibilities, different perspectives, and occasional disagreements, an AI companion may be designed to respond in ways that sustain a conversation and accommodate a user's preferences. This experience can be comforting, but it may also encourage expectations that are difficult to reproduce in human relationships. Ho et al. (2025) noted concerns about excessive reliance and possible effects on human relationships, while Chaturvedi et al. (2023) emphasized the importance of understanding the social and relational dimensions of conversational agents. These findings suggest that the convenience of digital companionship should be considered alongside the value of reciprocity, negotiation, and shared responsibility in human social life. The design of conversational agents is another factor that may shape social behaviour. Human-like language, personalized responses, and cues that suggest social presence can influence how users perceive and respond to AI. Klein (2025), in a meta-analysis of text-based conversational agents, found that human-like social cues had an overall positive effect on social responses, although effects varied according to the outcome and circumstances. Such features may increase engagement and

make conversations feel more natural, but they can also blur the distinction between simulated social interaction and human emotional understanding. Responsible design therefore requires clarity about the nature of AI systems and care in the use of features that may encourage attachment or influence vulnerable users.

The increasing use of conversational AI also raises questions about privacy, personal disclosure, and everyday social participation. Users may share sensitive information with chatbots because they perceive the interaction as private, accessible, or free from judgement. Papneja and Yadav (2025) reviewed research on self-disclosure to conversational AI and developed a framework for understanding the factors that influence what users reveal during these interactions. Their work highlights the importance of understanding the relationship between conversational design, users' perceptions, and the disclosure of personal information. At the same time, digital companionship may influence how users divide their attention between online interactions and offline relationships. The social consequences will depend partly on whether AI use complements human contact or begins to replace meaningful social participation. In this context, the present article examines social behavioural changes associated with conversational AI and digital companionship. It focuses on changing interaction patterns, emotional attachment, perceived social support, loneliness, and the potential consequences for real-world relationships. It also considers privacy, excessive reliance, and responsible system design. By synthesizing existing scholarly research, the article aims to provide a balanced understanding of how digital companionship may shape social behaviour and how AI can be used in ways that complement meaningful human interaction.

RESEARCH OBJECTIVES

1. To examine how conversational AI and digital companionship influence social behaviour and interaction patterns.
2. To analyse the potential benefits and risks of emotional attachment to AI companions.
3. To identify responsible approaches to digital companionship that support healthy social relationships.

RESEARCH QUESTIONS

1. How do conversational AI and digital companionship influence social behaviour and interaction patterns?
2. What are the potential benefits and risks of emotional attachment to AI companions?
3. Which approaches can promote responsible digital companionship and healthy social relationships?

LITERATURE REVIEW

Chaturvedi et al. (2023) conducted a systematic literature review of social companionship with conversational agents, examining how research in this area has developed across different disciplines. Their analysis identified major research themes and developed a conceptual framework addressing the factors that influence social companionship and its potential

consequences. The review highlighted emotional bonds, social presence, and relationships between users and conversational systems as important areas of investigation. It demonstrates that conversational AI is increasingly studied as a form of social interaction rather than only as a functional technology. However, the diversity of research approaches also indicates the need for more consistent definitions and further investigation into the long-term effects of AI companionship on human social behaviour.Ho et al. (2025) examined the potential benefits and risks of romantic AI companions through a systematic review of 23 articles. Their findings identified perceived emotional connection, social support, companionship, stress relief, and personal growth as possible benefits. At the same time, the review highlighted concerns involving over-reliance, privacy, manipulation, and the possible weakening of human relationships. This research is relevant because romantic and companion-oriented AI systems can encourage users to develop repeated interaction patterns and emotional investment. The review suggests that the social effects of AI companionship should be evaluated by considering both the user's perceived benefits and the possible consequences for offline relationships.Hu et al. (2025) explored the development of attachment to social companion AI through a two-stage mixed-method study. Their research examined the attitudes and perceptions that encourage users to interact with companion AI, how users evaluate the benefits and costs of interaction, and how attachment becomes visible in their behaviour. The findings suggest that perceptions of human–AI relationships and the value users receive from interaction may influence the formation of attachment. The study contributes to understanding why some people engage repeatedly with AI companions and why the consequences may differ among users. It also indicates that digital companionship should be understood as a developing social process involving individual needs, relationship expectations, and interaction experiences.

Liu et al. (2025) examined the relationship between companion chatbot usage patterns and loneliness through a large-scale survey of regular users. Their research explored differences in how people engage with companion chatbots and considered the implications of these patterns for psychosocial wellbeing. The study is important because it challenges the assumption that all users experience digital companionship in the same way. Some individuals may use chatbots occasionally for entertainment or conversation, while others may seek more frequent emotional support. These different patterns may be associated with different experiences of loneliness and attachment. The findings support the need to consider individual circumstances and the purpose of use when evaluating the social effects of conversational AI. Klein (2025) conducted a meta-analysis of research examining how human-like social cues affect responses to text-based conversational agents. The analysis found an overall positive effect on social responses, although the magnitude and nature of the effects varied across outcomes and contexts. This suggests that features such as conversational style and human-like presentation can influence users' perceptions and willingness to engage with AI. Such features may make interactions more comfortable and accessible, but they may also encourage users to attribute human-like understanding or emotional qualities to systems that do not experience feelings as people do. The study highlights the importance of responsible design and clear communication about the capabilities and limitations of conversational AI.

Papneja and Yadav (2025) reviewed the literature on self-disclosure to conversational AI and proposed a framework for understanding why people share personal information with these systems. Their work is relevant to digital companionship because users may reveal thoughts, concerns, and experiences when they perceive a chatbot as responsive, accessible, or non-judgmental. Self-disclosure can make an interaction feel more personal and may contribute to users' sense of connection. However, it also creates privacy concerns, particularly when users are unsure how their information is stored or processed. The review demonstrates that personal disclosure is an important behavioural dimension of human–AI interaction and should be considered when designing systems intended for emotional or social engagement. Zhang et al. (2024) investigated the relationship between different user–AI assistant relationship types and subjective wellbeing. Their research examined how users' perceptions of AI assistants as partners or as service-oriented tools relate to perceived social support and wellbeing. The findings suggest that the way users conceptualize their relationship with AI may influence their experience of the interaction. This is relevant to social behavioural change because relationship framing may shape users' expectations, willingness to disclose information, and perceptions of support. However, perceived companionship should not be equated with mutual human relationships. The findings instead suggest that the social framing and design of AI systems can affect how users interpret and respond to digital interactions. Overall, the reviewed literature indicates that conversational AI and digital companionship can influence social behaviour through repeated interaction, emotional attachment, human-like communication, and personal disclosure. The potential benefits include accessible conversation, perceived support, and opportunities for self-expression, while the potential risks include privacy concerns, excessive reliance, unrealistic social expectations, and reduced engagement in human relationships. Existing studies differ in their methods, populations, and definitions of companionship, making it difficult to draw universal conclusions. Further research is therefore needed to understand the long-term effects of digital companionship and the conditions under which AI supports rather than undermines meaningful social connection.

METHODOLOGY

This article adopts a literature-based methodology to examine social behavioural changes associated with conversational AI and digital companionship. Relevant scholarly publications were identified through academic search sources, including Google Scholar, and peer-reviewed research on conversational agents, AI companionship, emotional attachment, loneliness, social responses, and self-disclosure. Priority was given to relevant studies published between 2023 and 2025, including systematic reviews, meta-analyses, and empirical investigations. Publications were considered for their relevance to the research objectives and their contribution to understanding changes in social interaction, emotional engagement, and interpersonal behaviour. The selected literature was examined to identify recurring themes, contrasting findings, and limitations in the available evidence. Since the article synthesizes existing research rather than collecting new data from participants, its findings represent an interpretation of published literature and not original survey or experimental results.

RESEARCH DESIGN

The study follows a descriptive narrative review design. This design is suitable for examining a broad topic that connects artificial intelligence, social psychology, communication, and digital behaviour. The selected literature was organized into themes concerning changes in social interaction, emotional attachment and companionship, and the implications of AI use for human relationships. Findings were compared to identify common patterns, differences in interpretation, and limitations across the research. The narrative approach allows evidence from different research methods to be discussed together while recognizing that the studies may not be directly comparable. It also provides a foundation for considering the social and ethical implications of digital companionship and identifying areas that require further investigation.

DATA ANALYSIS

The selected literature was analysed through thematic synthesis to identify recurring patterns across studies of conversational AI and digital companionship. The analysis focused on changes in social interaction, emotional attachment, perceived social support, loneliness, personal disclosure, and human relationship patterns. Findings from systematic reviews, meta-analyses, and empirical studies were compared to identify common themes and differences in interpretation. Particular attention was given to the benefits of accessible companionship and emotional expression, as well as concerns involving excessive reliance, privacy, and the potential displacement of human interaction. Differences in research methods, participant characteristics, and definitions of digital companionship were considered when interpreting the evidence. No original statistical tests or participant-based data collection were conducted; the analysis therefore represents a qualitative synthesis of existing scholarly research.

FINDINGS

The reviewed literature indicates that conversational AI is creating additional forms of social interaction in which people communicate with digital systems for information, entertainment, emotional expression, and companionship. Unlike conventional digital tools, companion-oriented chatbots can maintain conversational exchanges and respond to users in personalized ways. These features may encourage repeated interaction and lead some users to perceive the system as a social companion (Chaturvedi et al., 2023; Hu et al., 2025). However, the effects differ according to users' motivations, expectations, and social circumstances. Digital companionship should therefore be understood as a varied experience rather than a uniform behavioural change affecting every user in the same way.A second finding is that AI companionship may provide perceived emotional support and opportunities for self-expression. Some users may find it convenient to discuss personal concerns with conversational systems because they are accessible and may feel less socially demanding than human conversations. Ho et al. (2025) identified perceived emotional connection, companionship, and stress relief among the potential benefits reported in research on romantic AI companions. Similarly, Zhang et al. (2024) examined how users' perceptions of their relationship with AI assistants relate to social support and subjective wellbeing. These findings suggest that the way people understand and experience AI interactions can influence the perceived value of digital companionship. Nevertheless, the evidence does not establish that all users benefit equally or that AI provides the same reciprocal emotional understanding as human relationships.

The literature also indicates that repeated interaction may contribute to emotional attachment and changes in social expectations. Hu et al. (2025) explored how users' attitudes toward relationships and evaluations of the interaction may contribute to attachment to social companion AI. Personalized communication and consistent responses may make AI interaction feel familiar, but they may also encourage expectations of availability and responsiveness that differ from those of human relationships. Such changes are not necessarily harmful, but they warrant attention when digital companionship becomes a person's primary source of emotional support. The key issue is whether AI use complements users' social lives or begins to displace meaningful contact with other people.Another finding concerns the relationship between conversational AI, loneliness, and individual differences. Liu et al. (2025) examined different patterns of companion chatbot use and their relationship with loneliness, highlighting the varied experiences of users. This suggests that the same technology may serve different purposes for different people. Some users may engage with chatbots occasionally, while others may seek frequent reassurance or sustained companionship. Consequently, the social consequences of AI use cannot be evaluated without considering the reasons for engagement, the user's existing relationships, and the wider context of their life. More longitudinal research is needed to determine whether particular patterns of use improve social wellbeing, have little lasting effect, or contribute to excessive reliance.

The review further identifies privacy and self-disclosure as important aspects of digital companionship. Conversational AI may encourage people to share personal information when they perceive an interaction as accessible or non-judgmental. Papneja and Yadav (2025) examined the factors associated with self-disclosure to conversational AI, highlighting the importance of understanding how users decide what to reveal. Although self-disclosure may make conversations feel more personal, users may not fully understand how their information is stored or used. Responsible AI systems should therefore communicate data practices clearly and avoid encouraging unnecessary disclosure of sensitive information. Users should also consider the privacy implications of sharing personal or relationship-related details with digital systems.Finally, the literature indicates that conversational design can influence social responses. Klein (2025) found that human-like social cues can affect users' responses to text-based conversational agents, although the effects vary across circumstances. These cues may make digital interactions more engaging, but they can also blur users' understanding of the distinction between an AI system and a human companion. Responsible design should balance conversational accessibility with transparency about system capabilities. Overall, the findings suggest that digital companionship can provide useful forms of interaction, but its social value depends on context, user expectations, privacy safeguards, and the maintenance of meaningful human relationships.

CONCLUSION

Conversational AI and digital companionship are creating new ways for people to communicate, seek support, express emotions, and experience social connection. This article reviewed existing scholarly literature to examine how these technologies may influence social behaviour, emotional attachment, personal disclosure, and human relationships. The reviewed research

suggests that conversational AI can provide accessible conversation, perceived companionship, and opportunities for self-expression. At the same time, it raises concerns involving excessive reliance, privacy, unrealistic expectations, and the possible reduction of meaningful human interaction.The findings demonstrate that social behavioural changes associated with AI are influenced by users' motivations, interaction patterns, expectations, and existing social circumstances. Human-like communication and personalization may encourage engagement, but they do not mean that an AI system possesses human emotions or can fully reproduce the mutual understanding found in human relationships. Similarly, perceived emotional support may be valuable to users without establishing that digital companionship can replace friends, family members, or other forms of human connection.

In conclusion, conversational AI should be developed and used in ways that complement rather than undermine human social relationships. Developers should prioritize privacy, transparency, responsible conversational design, and safeguards against excessive dependence. Users should maintain awareness of AI limitations and balance digital companionship with real-world relationships and social participation. Future research should investigate long-term behavioural outcomes, differences across age groups and cultures, and the circumstances in which AI companionship supports or weakens social connection. A balanced approach can help individuals benefit from conversational AI while preserving human autonomy, meaningful relationships, and responsible social behaviour.

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