

Computer love: AI-powered chatbots are changing how we understand romantic and sexual well-being

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Over the past decade, virtual assistants powered by artificial intelligence, like Apple's Siri and Amazon's Alexa, have become integral to

technologies such as smartphones and social media.

More recently, a new type of human-like chatbots are on the rise: AI romantic companions. Chatbots are AI-powered programs that engage with humans through [text, voice and images](#).

Currently, more than 100 AI-powered applications—such as [myanima.ai](#), [Eva AI](#), [Nomi.AI](#) and [Replika](#)—offer romantic and sexual companions with extensive personalization options, including physical and personality features. Exhibiting remarkable realism, adaptability and interactive fluidity, these AI chatbots can progressively [evolve through conversation](#), fine-tuning their responses to match users' interests, needs and communication styles.

Modern AI chatbots have increasingly human-like qualities that raise users' propensity to engage and form [emotional bonds](#)—even to the point of [falling in love](#).

Exacerbated by COVID-19 pandemic restrictions, loneliness has led more people to use AI as a substitute for [counselors](#), [friends and romantic partners](#).

Romantic partner substitutes

Research shows AI chatbots can offer companionship, ease loneliness and boost positive emotions with supportive messages. Chatbots also provide a judgment-free space for open conversations and advice when other resources are scarce. People can also form intimate and passionate connections with AI that are similar to human relationships.

Surprisingly, there doesn't seem to be a [difference in enjoyment, sexual arousal and emotional response](#) whether participants believe they are interacting with a human or a [chatbot](#). One study even showed that

individuals feel [a stronger emotional connection with chatbots compared to less responsive humans during a conversation.](#)

[Research repeatedly suggests](#) that humans can [form genuine emotional bonds with AI](#), even if they acknowledge it is not a "real" person.

Although many people appear to derive psychological benefits from using chatbots, the potentially harmful consequences of these relationships remain unclear.

Dark side of AI love

Romantic chatbots are programmed to offer a unique form of companionship, with constant availability and seamless interactions while avoiding conflict and the need for compromise. This raises concerns about the impact on users' expectations regarding human romantic and [sexual relationships](#).

Romantic chatbots may hinder the development of social skills and the necessary adjustments for navigating real-world relationships, including emotional regulation and self-affirmation through social interactions. Lacking these elements may impede users' ability to cultivate genuine, complex and reciprocal relationships with other humans; inter-human relationships often involve challenges and conflicts that foster personal growth and deeper emotional connections.

The customizable nature and constant availability of AI companions can also lead to social isolation and [emotional dependency](#). Researchers suggest that extensive engagement with AI companions might cause individuals to withdraw from their immediate environment and reduce their motivation to build new, meaningful social connections. Users may also come to overly rely on these digital entities for [emotional support](#), companionship or sexual need fulfillment.

A notable example occurred in 2023 when Replika removed the sexual roleplay capabilities of its AI companions. This change significantly altered the personalities of existing Replikas, [causing considerable user distress](#). Many users felt betrayed and rejected, and reported a profound sense of loss. Due to the outcry, Replika quickly [reinstated the functionality for existing users](#).

Intimate surveillance

In 2023, a [Mozilla Foundation security analysis of 11 popular AI chatbot apps](#) uncovered alarming privacy issues. Most apps could share or sell personal data, with half preventing users from deleting their information.

Even more concerning is that many of these apps are packed with thousands of trackers that monitor user activity on their devices for marketing purposes. Another recent study on 21 AI romantic companionship apps revealed [similar privacy concerns](#).

Enhancing romantic well-being

Although empirical data is still emerging, AI-driven sexual interactions could offer a safe, low-risk alternative to sexual and romantic relationships. Romantic and sexual chatbots hold particular promise for individuals experiencing major challenges in establishing satisfying romantic relationships due to illness, bereavement, sexual difficulties, psychological barriers or mobility impairments.

AI technologies could also be leveraged for sexual and romantic exploration among marginalized communities or among individuals that are socially isolated.

Additionally, chatbots can be used as a romantic socialization and research tool, helping individuals create bonds and improve their

interactional skills. For example, research has shown their effectiveness in [enhancing emotional communication among long-distance couples](#), while ongoing studies are exploring their potential to help individuals manage distress from being ghosted on dating apps.

As researchers at [EROSS lab](#), located at the Université du Québec à Montréal, one of our ongoing studies assesses the use of chatbots to help involuntary celibates improve their romantic skills and cope with rejection.

Despite promising clinical applications, current sex research on the use of chatbots mainly focuses on sexual health education, covering topics like [sexually transmitted infections](#) and [reproductive health](#).

Relationship revolution

Current advances in AI technologies are marking a new era for intimate romantic and sexual relationships. AI chatbots can offer personalized romantic and emotional fulfilling interactions, with promising opportunities to alleviate loneliness, enhance romantic skills and provide support to those struggling with intimacy.

However, they also raise [privacy issues](#) and important ethical concerns that underscore the need for an educated, research-informed and well-regulated approach for positive integration into our romantic lives. But current trends indicate that AI companions are here to stay.

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