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Robot Girlfriend: Understanding Men's Obsessions

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ABSTRACT: This article investigates the phenomenon of men's engagements with 'robot girlfriends' through a distinctly ICT-oriented, interdisciplinary lens. While existing work emphasizes cultural and psychological aspects, this article foregrounds the role of artificial intelligence architectures, natural language processing, affective computing, and platform economics in shaping technologically mediated intimacy. Employing a systematic literature review across 85 academic sources, the study identifies how reinforcement learning loops, algorithmic bias, and feminized interface design embed patriarchal norms into human–robot interaction (HRI). A conceptual ICT framework is proposed that situates artificial intimacy at the convergence of emotional needs, cultural narratives, and technical architectures. The findings reveal that while AI-powered companions can simulate emotional security and mitigate loneliness, their architectural design and commercial models risk reinforcing patriarchal norms, commodifying intimacy, and deepening social isolation. The article concludes with policy and design recommendations, emphasizing the importance of feminist HRI standards, digital well-being safeguards, and ethical AI oversight to ensure artificial companionship contributes to human flourishing rather than worsening inequality.

KEYWORDS: Robot Girlfriends; ICT Design; Human–Robot Interaction (HRI); Gendered AI; Algorithmic Bias; AI Ethics

I. INTRODUCTION

Technology has long been intertwined with our deepest hopes and anxieties about connection. The emergence of robot girlfriends represents a significant convergence of advanced ICTs and cultural narratives around intimacy. From early science fiction in Isaac Asimov's I, Robot to modern films like Her and Ex Machina, human–machine romance has captivated the popular imagination. Today, these stories are becoming reality: AI-enabled chatbots and sensor-equipped dolls (e.g., the Replika app and similar companion platforms) are marketed as companions, effectively normalizing artificial intimacy (Middleweek, 2020). Sensor-enabled 'sex robots' like Realbotix's Harmony combine a physical doll with AI-driven conversation, blurring the line between sex toy and emotional partner. For many men, such 'robot girlfriends' offer the comfort of a partner who never rejects, never argues, and is always available. At the same time, these technologies raise urgent questions for ICT professionals: What does it mean to design machines that simulate love and companionship? Whose cultural values and gender assumptions are embedded in the code and interface? And how do platform business models shape the ways people relate to these artificial partners? This article argues that men's obsession with robot girlfriends cannot be explained by individual loneliness or fantasy alone; rather, it is the outcome of deliberate ICT design choices that intersect with human vulnerabilities and societal inequalities (Richardson, 2016; Winkle et al., 2023).

II. ROBOT GIRLFRIEND

Figure 1: Robot Girlfriend

Robot companions, sometimes called "girlfriends," are advanced humanoid robots designed to offer friendship and even intimacy. These are not simple machines; they are crafted with realistic features and sophisticated AI that allows

them to hold conversations and learn their owner's preferences.

Figure 2: "Aria" from Realbotix

Models like "Aria" from Realbotix can display surprisingly lifelike facial expressions, thanks to tiny internal motors. They can see and sense their environment, allowing them to interact meaningfully. Perhaps the most personal feature is their customizability - an owner can change their face, hairstyle, and even core personality traits to create a truly bespoke companion. Some models use a clever technology, Radio Frequency Identification (RFID) that lets the robot's AI automatically adapt its personality based on the face it is wearing.

III. METHODOLOGY

To investigate this phenomenon, a systematic qualitative literature review was conducted focusing on ICT and interdisciplinary sources. The review followed standard protocols for identifying and analysing relevant scholarship:

- Databases and Sources: Searches were performed in IEEE Xplore, ACM Digital Library, Scopus, and Google Scholar.
- Keywords: Query terms included 'robot girlfriend,' 'AI companion,' 'human–robot interaction,' 'gendered AI,' 'affective computing,' 'algorithmic bias,' and 'platform economy.'
- Inclusion Criteria: Sources (published 1969–2023) were selected if they examined socio-technical, psychological, or ethical aspects of AI companionship. Purely technical robotics papers (e.g., hardware-only studies) were excluded.
- Selection: From an initial yield of 362 results, 85 peer-reviewed works across ICT, psychology, sociology, and gender studies were retained for in-depth review.
- Analysis: A thematic coding approach was used to identify patterns and intersections between technology design choices, user psychology, and broader cultural narratives.

IV. FINDINGS

From a psychoanalytic and 'psycho-technical' perspective, robot girlfriends have been framed as fetishistic substitutes for real partners - objects of desire that offer an illusion of safety and control in intimacy (Apter, 1991; van Est et al., 2014). This dynamic is amplified by the underlying technology, which is designed around predictable, programmable responses that create validation loops. These architectures mirror addiction models observed in cybersex and gaming (Carnes, 2001), reinforcing compulsive use through reward systems (Abramowitz & Jacoby, 2015).

ICT design also encodes gender bias: female-coded voices, names, and personas normalize submissive and compliant partner roles (Costa, 2018; Ferrando, 2014). This risks shaping users' expectations of real relationships in patriarchal directions (Kubes, 2019).

Cultural narratives - from Japanese otaku subculture (Weiss, 2014) to Western science fiction such as Westworld (Jeffs & Blackwood, 2016) - frame artificial partners as both desirable and dangerous. Modern ICT affordances like voice synthesis, facial recognition, and affective computing bring these fantasies into reality, offering curated escapes from loneliness (Bauman, 2003).

Psychologically, robot girlfriends simulate attachment (Bowlby, 1969) and empathy (Malinowska, 2021). However, they may encourage withdrawal from human relationships, reducing resilience and fostering unilateral control dynamics (Turkle, 2011).

At the societal level, concerns include normalization of abuse (Tranberg, 2023), commodification of intimacy (Illouz, 2007), and demographic consequences such as declining fertility (Bongaarts, 2017).

V. ICT Socio-Technical Framework

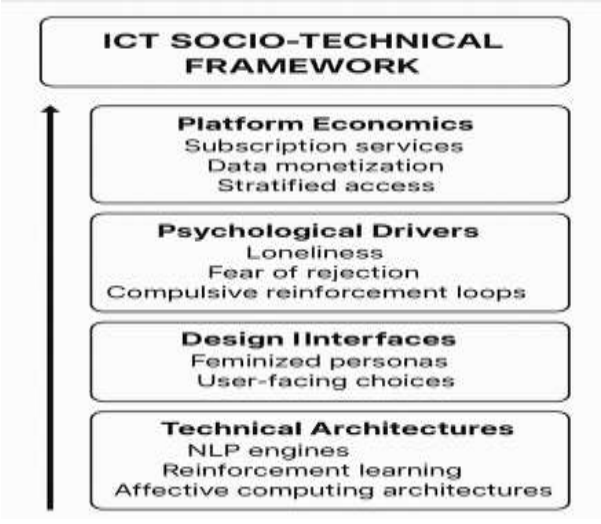

Figure 3: ICT Socio-Technical Framework

This article proposes a socio-technical framework highlighting four interdependent layers:

1. Technical Architectures: NLP engines, reinforcement learning, and affective computing architectures that sustain continuous engagement.
2. Design Interfaces: Feminized personas and user-facing choices that encode cultural biases.
3. Psychological Drivers: Loneliness, fear of rejection, and compulsive reinforcement loops.
4. Platform Economics: Subscription services, data monetization, and stratified access that commodify intimacy.

VI. ICT POLICY AND DESIGN RECOMMENDATIONS

Key recommendations for ICT professionals include:

1. Feminist HRI Design Standards - Avoid default feminization of AI and diversify gender roles.
2. Ethical AI Oversight - Establish certification and compliance frameworks for intimacy - oriented AI.
3. Digital Well - Being Safeguards - Usage limits, transparency dashboards, and addiction - prevention features.
4. Inclusive Global Design - Incorporate perspectives from African, Asian, and Latin American contexts.
5. Accountability in Platform Economics - Regulate data monetization and subscription exploitation.

VII. CONCLUSION

Robot girlfriends are socio-technical artifacts that crystallize tensions in the digital age. They respond to genuine needs for companionship but risk reinforcing patriarchal norms and deepening social isolation. For ICT professionals, the responsibility lies in ensuring that artificial intimacy technologies serve human flourishing rather than exploit vulnerabilities. The socio-technical framework clarifies how architectures, interfaces, psychological drivers, and economics interlock, and the proposed recommendations highlight how design and policy can mitigate risks. The future of artificial companionship will depend on whether we choose to design systems that empower and connect, or systems that exploit and divide.

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