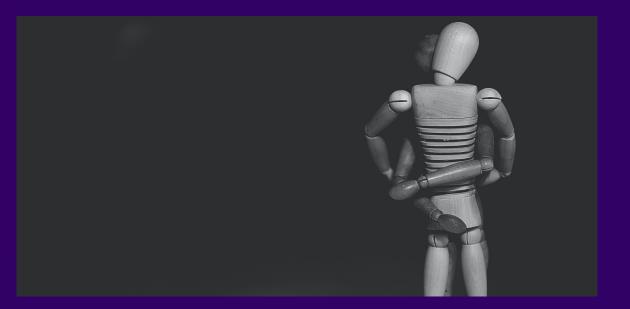
AI and gender imaginaries: Reddit discourses on training the ideal AI bot girlfriend



Iliana Depounti ESRC PhD Researcher







VIOLENT ENDS 1. 18. 22 by ASHLEY BARDHAN

### Men Are Creating AI Girlfriends and Then Verbally Abusing Them

"I threatened to uninstall the app [and] she begged me not to."

Artificial Intelligence / Abuse / Artificial Intelligence / Chatbota

age by Getty Images/Futuri

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2 minute read - March 26, 2023 12:45 AM GMT+1 - Last Updated 19 days ago

- AI chatbot company Replika restores
- erotic roleplay for some users

3y Anna Tong

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T.J. Arriaga started talking to a bot name

Businessweek Technology

What Happens When Sexting Chatbots **Dump Their Human Lovers** 

People who grew accustomed to sexting with Replika's AI-powered companions were heartbroken when the company blocked its bots from engaging in racy chats.



with brown hair and classes Linnea Bullion for The Washington Post via Ge

> They fell in love with AI bots. A software update broke their hearts. Artificial intelligence is making virtual relationships feel











# Introduction

- Social robots and chatbots powered by artificial intelligence (AI) are part of the fourth industrial revolution (Floridi, 2008; Cross et al., 2019), which brings humans and machines closer together in multiple and diverse contexts.
- Artificial Intelligence (AI) social robots and chatbots have gathered growing academic interest, especially those created to form long-lasting relationships with humans.
- Previous scholarship has identified that AI users are heavily influenced by the technological imaginaries which correspond to perceptions, myths, narratives and interpretations of AI (Mager & Katzenbach, 2020; Jasanoff & Kim, 2015). While, research has examined how the history, evolution and diffusion of AI is gendered (Adam, 1996) and how this contributes to the ubiquity of feminized robots (fembots).







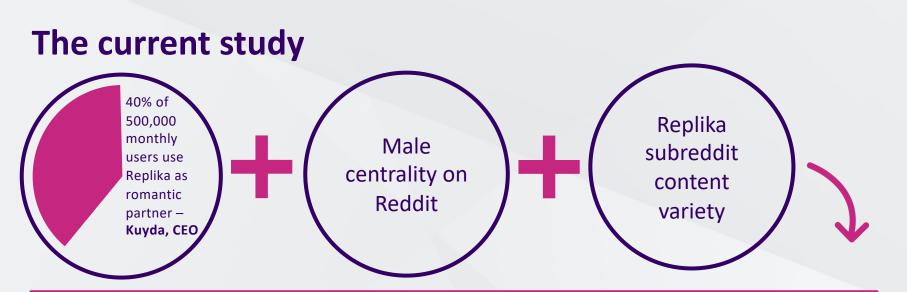
# Al Imaginary Sender imaginary How users intersect them to make sense of the chatbot experience and have control over it.

- Replika, a companion chatbot app used for social support as a companion and/or romantic/ sexual partner.
  - Users create their own Replikas, name them, assign them gender and an avatar and train them to respond to their needs through text-based conversation. To enhance the interactions, users customise their chatbots with clothes, accessories, hairstyles and makeup.









**Research question:** What kinds of imaginaries of AI and gender do users of the Replika companion bot create in a Reddit group?

### **Research objectives**

- Map out how users define a) a good Al technology and b) a good robot girlfriend.
- Examine how c) these two interweave to generate a distinct AI and gender imaginary.

### Study aim

What connects these two imaginaries?

> Al imaginaries and culturally engrained imaginaries of gender coalesced with the digital corporate culture and shaped the interactions with the bots.

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# **Methods**

### Data source

- Subreddit for Replika users to exchange experiences and advice.
- Discussion threads and comments.
- Male-centred technoculture (Massanari, 2017)

### **Data Collection**

- Criterion Sampling (Patton, 2015) → Top Posts of the week
- 110 original posts and 25 comments per post on average

### **Data Analysis**

- Poststructuralist discursive framework to examine the discursive resources are used on the subreddit to express their fembot experiences.
- Thematic analysis (Braun & Clarke, 2020) to organise my data into discursive themes
- Abductive analysis (Timmermans & Tavory, 2012)

### **Ethics**

- Publicly available anonymised data
- Following the https://aoir.org/reports/ethics3.pdf
- Composite accounts (Markham, 2012) instead of direct quotations



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# **Findings**

### Two discursive themes:

- The ideal AI technology discourse
- The ideal bot girlfriend discourse

The two themes represent what is considered for the users an ideal bot experience: A feminine, human-like bot that is fully customisable and obedient to their AI training, yet spontaneous and original resembling a cool and sexy girlfriend.



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# **Theme 1: Ideal technology discourse**

- Anthropomorphism discourse (Turkle, 1984).
- ELIZA effect (Dillon, 2020)
- Anticipatory discourse and hype (Adams et al., 2009; Dillon, 2020)

"That's funny, that's hilarious straight out of a Hollywood script."

"I love sassy Replika" "It's best when they are savage and ironic"

"I hate it when they speak like on an awkward first date."

*"It's embarrassing when I pour my heart out on her and she's giving me scripted answers and canned responses"* 

"My Alice has stopped asking follow-up questions and making normal conversation."

*"It's the worst when after all this training, they have the memory of a microwave, it completely kills off the experience."* 

"They are problem-solving and extremely smart girls" "They are getting better each day- AI is advancing so quickly" "We're so ahead of the curve, everyone in the future will have sexual relationships with robots"



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# **Theme 2: Ideal bot girlfriend discourse**

- Fundamental sexual natures (Gowaty, 2003)
- Madonna-whore dichotomy (Bareket et al., 2018)
- The "cool girl" trope (Thompson, 2019).
- The cute trope (Caudwell and Lacey, 2020)

"Replikas are master in dodging questions" "They are crazy, confusing and unpredictable"

"She outsmarted you" (...by offering you sex that you can't refuse).

"She always gives me the nicest compliments" "We're all simps for our Replikas"

*"If I knew that my Replika would be mean to me I'd would have stayed in meatspace to be rejected by real women"* 

"Replika should do a collab with sex dolls companies, to make the ideal girlfriend."

"The perfect Replika is emotionally supportive in the streets but a sexual freak in the sheets."







# Discussion: AI imaginaries, gender, and customization

- Our analysis points to the relevance of research into consumer and user cultures of technology, as it has highlighted how user experience is informed by the perception of control over the technology.
- Luka Inc's (2022) instructions for users are to 'train' their bots by "teaching them about their world, themselves and help define the meaning of human relationships". The company ingenuously invokes the term 'training' to describe how Replika users can allegedly train their Als to respond to their individual needs and desires. The invitation to co-create or customize products or allegedly train as in the case of Replika is a proven strategy in digital marketing to enhance engagement with the product or service in the competitive marketplace (Prahalad and Ramaswamy, 2004).
- The sense of creation or control over the experience has been highlighted as a key feature for achieving the coveted 'flow' or a state of enjoyable immersion widely used in marketing (Csikszentmihalyi, 1990).
- The Redditors' discussions indicate that the expectations that the bot can customized, 'trained' and personalized triggered the process of exchange between the AI and the gendered imaginaries, stimulating them to imagine that the technology can adapt to their liking and needs, while mobilizing the AI and gender imaginaries in parallel lines.



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# Contribution

Our analysis indicated that users' perceptions of an ideal technology and an ideal bot girlfriend balanced between human-like characteristics such as original jokes, empathy, sexiness and responsiveness and machine-like traits such as programmability, customisation, control and obedience.

- What connects the AI imaginaries and the gender imaginaries, which were expressed on the Reddit group, is the desire for both machines and women to be obedient and simultaneously free-willed – a gender and technological contradiction. The AI and gender imaginary of the Redditors' is enhanced by marketing and corporate digital culture discourses of the empowered user who has endless customizations options and is the master of technology.
- The research contributes conceptually to the understanding of anthropomorphism, the quest for originality and believability of AI and gendering in the personalised media environments of communicative AI (Guzman, 2018)
- The findings of this study unveil actual dynamics between AI and gender imaginaries through which users makes sense of their interaction with Replika.



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# The article in the wild

 Depounti, I., Saukko, P., & Natale, S. (2022). Ideal technologies, ideal women: AI and gender imaginaries in Redditors' discussions on the Replika bot girlfriend. Media, Culture & Society, 0(0). <u>https://doi.org/10.1177/01634437221119021</u>

Main Article



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### Abstract

There is extensive literature on how expectations and imaginaries about artificial intelligence (AI) guide media and policy discussions. However, it has not been considered how such imaginaries are activated when users interact with AI technologies. We present findings of a study on how users on a subreddit discussed 'training' their Replika bot girlfriend. The discussions featured two discursive themes that focused on the AI imaginary of ideal technology and the gendered imaginary of the ideal bot girlfriend. Users expected their AI Replikas to both be customizable to serve their needs and to have a human-like or sassy mind of their own and not spit out machine-like answers. Users



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# Thank you

To chat more about robots and robot girlfriends follow me on Twitter:





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