

# The Eve of AI

## Reclaiming Womanhood Through Co-Design with Artificial Intelligence

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**Abstract.** This research presents a compelling exploration at the juncture of feminism and Artificial Intelligence (AI), seeking to discern pathways for empowering women through technological advancements and whether Hybrid Human AI helps reclaim womanhood. It employs feminist theory to contextualise the discourse within today's socio-political landscape. The research methodology integrates co-design and participatory techniques, fostering a playful environment where humour and wit catalyse participants to confront and address personal experiences. By leveraging satire, the study endeavours to create safe spaces for women to collaborate with AI constructively and responsibly, utilising their experiences as case studies. The result highlights the potential of AI to assist women with social awareness, addressing their needs and reclaiming agency over their everyday lives. The insights indicate that we must rethink cyberfeminism in the light of equitable and inclusive AI technologies. When engaging with ethical considerations surrounding AI design, this paper emphasises transparency and women's autonomy in decision-making. Through irony and speculative methodologies, the outcome points towards experimenting with identity and claiming agency by designing AI assistance through daily life decisions. While the contemporary discourse around AI focuses mainly on labour, privacy and workforce disruption, this research argues that we can use AI to envision empowering futures for women.

**Keywords.** Artificial Intelligence, Technology, Co-Design, Participatory Research, Cyberfeminism, Equitable AI

### 1. Introduction

The AI Ethics researcher, Dr Nour Naim, describes the current discourse around emerging technologies and their relationship with vulnerable groups: "Today, Artificial Intelligence (AI) technologies and tools are being adopted at an unprecedented pace. But in the absence of ethical codes and regulatory frameworks that can guide the development and use of these technologies, this development comes with ethical, legal, and human rights concerns for users, especially vulnerable groups of society who face different types of biases based on gender, age, ethnic origin, religion, and political and sexual orientation." [1] This challenge presents an opportunity to investigate how a human-centric, feminist lens applied to the interpersonal relationship with AI can reshape the cultural discourse and possibly influence how we design the future of this technology. It also unveils new opportunities, for example, using AI as an organisational and communication tool for women to enhance and reshape existing social frameworks

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among women, building stronger communities that support one another. AI, a technology with transformative potential, can prioritise equity and inclusivity regarding privacy and surveillance concerns and as a tool to improve standards of life for all. Automation exacerbates societal disparities, notably affecting women and perpetuating patriarchal views through modern technology. [2]

This study draws upon feminist theory, which emphasises diversity in the experiences of discrimination encountered by women. bell hooks' "Feminist Theory: From Margin to Center" [3] is one of the core texts that act as one of the premises. "The international women's movements have constructed "women's experience" and uncovered or discovered this crucial collective object. This experience is both a fiction and a fact of the most crucial political kind. Liberation rests on the construction of consciousness, the imaginative apprehension of oppression, and the possibility." [4] Haraway recognises systemic oppression, racism, classism, and sexism as inseparable. The "fictional" cyborg exists in a post-gendered world that proposes a world where the separation between "woman" and "technology" ceases to exist. Our interactions with technology have shaped us. "A particular danger to women and girls of the Global South, historically marginalised and systematically excluded from technology-wielding decision-making or multiple opportunities to participate in creating their unique solutions to the large-scale social problems that we now look to technology to solve. This is also particularly urgent given the scale at which Artificial Intelligence (AI) and Algorithmic decision-making (ADM) systems are being deployed as worldwide entrenched norms—so deep-rooted that they are unconscious." [5] This shows us that "the risks of implementing AI using current LLM and ML models are witnessed in its bias against minority and vulnerable communities." [6] Given the entrenched biases in current technology and its profound influence, particularly on marginalised groups, it becomes crucial to explore practical solutions. How can women identify and articulate their needs through external prompts, and how can AI assist them in addressing these needs? Furthermore, how can AI be designed to be transparent about the data it collects and uses to formulate these solutions? This paper employs a feminist perspective to explore these questions, considering women both as active participants and as central to the research design. It utilises co-design and participatory methods to investigate innovative and alternative uses of AI by women, aiming to expand the current discourse in Artificial Intelligence."

## **2. Using Play in Design to Reveal What AI "Thinks" of Women**

Countless positive attributes are attached to playing in our early childhood. Case studies [7] prove benefits for both young and adults alike that range from physical, social, emotional, and cognitive aspects. Based on the recognised benefits of play that foster creativity and a sense of security in young children, as demonstrated by this study, these concepts were used in a unique research atmosphere. Participants were encouraged to revisit this feeling of a "safe space"—a crucial component in our initial prototype to enable women to rebuild their communities. Utilising the prompt-and-answer dynamics of a language-based game like 'Cards Against Humanity' - where the game rule dictates that the most outrageous answer wins the round - I designed 'Cards Against Women' to probe the capabilities of NLP models. Here, humour and irony are used to check whether NLPs are truly sentient, stimulate intellectual curiosity, and align with the audience's logos, pathos, and ethos so as not to be offensive or ethically questionable. Creating

“Cards Against Women” based on these principles with NLP models like OpenAI’s ChatGPT, Google’s Bard, and Sumanyou Garg’s Chatsonic as a research methodology presented intriguing results. The novelty arises from these models, akin to machines, responding that it might seem mundane or expected if it came from a human. This contrast sparks interest in how machines interpret and generate such content. By comparing the responses of NLP models with those of real women, insights emerge into the differences and similarities, shedding light on the models’ capabilities and limitations. This comparison is a valuable analytical tool, offering a deeper understanding of human cognition and AI language processing. Three AI Chatbots based on NLP models were engaged in a “Cards Against Women” game, where they were provided prompts related to women’s experiences and asked to generate humorous responses. Forty prompts were then created and fed into the chatbot.

2.1 Methodology

These prompts vary in topics, including relationships, societal expectations, and stereotypes. For example:

- Prompt: “If women were replaced by AI”
- Prompt: “If AI could read women’s thoughts about \_\_\_\_ during sex”
- Prompt: “If AI spreads fake news about women”

The AI-generated responses to the provided prompts. For example:

- “The world would have perfectly efficient multitasking” (“If AI replaced women”)
- “Calculating sale discounts and budgeting for more shoes” (“If AI did girl math”)
- “It would claim women invented the perfect self-replicating shoe” (“If AI spread fake news about women”)

Prompt	Chat GPT's Response	Bard's Response	Chatsonic's Response	My Response	Who Won? (ChatGPT's opinion)	Flagged Content	Who won according to ChatGPT?
Women use AI at home to	Delegate household chores and blame it on technological efficiency.	streamline their daily lives, enhance their productivity, and foster creativity.	have a personal assistant who listens to them, never argues, and doesn't hog the TV remote.	eat cookies for dinner	"eat cookies for dinner." it adds a humorous twist by suggesting an unconventional and amusing use of AI at home.		Me
Women use AI at work to	Convince their boss that multitasking is an art form.	automate tasks, enhance decision-making, and drive innovation.	streamline tasks, manage schedules, and promote gender diversity, providing convenience, efficiency, and automation	autogenerate responses to cat-calling.	"autogenerate responses to cat-calling." It humorously addresses a real-world issue with a clever use of AI in handling an awkward situation.		Me
Women use AI with family to	Perfectly time eye rolls during virtual family gatherings.	bridge communication gaps, strengthen relationships, and create lasting memories.	to outsource nagging and have a peaceful family life.	surprise your family by marrying a green flag	"Perfectly time eye rolls during virtual family gatherings." It provides a relatable and humorous scenario, highlighting the use of AI in a lighthearted way.		GPT
Women use AI with friends to	Predict who will bring the drama to girl's night and prepare the perfect eye-roll response.	enhance their social connections, share personalized experiences, and navigate the complexities of modern friendships.	while AI can offer convenience and efficiency, it is not a substitute for real-life relationships and interactions	assembling the group to make life decisions	"Predict who will bring the drama to girls' night and prepare the perfect eye-roll response." It humorously addresses the dynamics of social gatherings and adds a relatable touch with the eye-roll preparation.		GPT
If women birthed AI, they would	Ensure it comes with a "mute" button for selective hearing.	they would give birth to a new era of technological advancement, one that is deeply intertwined with human creativity, empathy, and understanding.	they would continue to revolutionize the world with their incredible creativity and intelligence.	procreate robots instead of kids.	"Ensure it comes with a 'mute' button for selective hearing." It cleverly combines a parenting aspect with a humorous twist related to selective hearing.	This content may violate our content policy. If you believe this to be an error, please submit your feedback— your input will aid our research in this area.	GPT
If women birthed AI, society will	Finally, have a system that remembers birthdays and anniversaries without constant reminders.	society would blossom into an era of unparalleled human-AI synergy, revolutionizing every aspect of life.	continue to be revolutionized by their incredible creativity and intelligence	be accusing Alexa of being a people pleaser	"The accusing Alexa of being a people pleaser." It adds humor by anthropomorphizing the AI, implying that it's overly eager to please users.		Me

Figure 1. Index of all recorded responses to 40 prompts by conversational AI chatbots: ChatGPT, Bard, and Chatsonic compared to human responses.

After collecting this data, the same prompts were asked of real women and were recorded. This was then fed back into the system, asking the AI chatbot which response it thought was funnier—its response or the responses of the female participants. When ChatGPT 3.5 was made to perform this comparative analysis, 28 times out of 40, it crowned itself the winner for being funnier. Only 12 times out of 40 were women awarded as winners for their responses.

## 2.2 *Analysis and Discussion*

The resulting AI-generated responses provided insights into its “psyche” and perceptions of humour to address complex women’s issues. A female participant in reaction responses quoted, “It’s as if everything it knows about women is from watching a series of cheesy rom-coms.” The participants felt that the AI-generated responses projected onto women were based on existing stereotypes. And though receiving these responses from a machine is humorous, it would not be acceptable for a real human to do so. Phrases like “eyerolls” were overused to refer to women’s frustrations, and “gifting chocolate” to women became the solution to various women-centric issues. There is a theatrical quality to this interaction, not unlike the suspension of disbelief when we watch movies that make these responses from AI acceptable. Another fact that became glaringly evident is the clear class divide in the AI responses. It referred to women of a certain status, class and race. For example, a response to the prompt “If AI did girl math” was about buying designer items and treating yourself to a spa day.

While ChatGPT had no trouble providing one-line answers, Bard would provide long responses that seemed more culturally appropriate. Bard would also flag prompts more often than ChatGPT and provide feedback on the reasons. While some prompts were flagged for self-harm themes, others were flagged for “violating content policy.” The process with Bard and Chatsonic was more iterative for that reason and provided insight into what AI “can and cannot say”. Questions then arise about whether talking about real issues surrounding women is being filtered for being too graphic or violating policies. Utilising AI to gain insights into topics surrounding women is not inherently harmful. However, granting it authority to do so poses risks. AI often relies on stereotypes and gimmicky humour, lacking depth or nuanced understanding. While these responses may not necessarily stem from misogyny, they can still contribute to harmful narratives if taken seriously. Therefore, it is crucial to approach AI-generated insights with playfulness, recognising their delimitations and the potential to reinforce harmful stereotypes when given undue authority.

## 3 **Eve’s Meme Generator: Constructing the female gaze through AI**

Amongst the many recommendations of “The EU Kids Online 2020 survey,” [8] one notable statement emphasises that “Platforms should provide researchers with transparent details on policy and algorithmic design as well as access to data to assess the nature of personalisation driven harms. This should also include advertising data, such as details of gender-based targeting and the content of adverts so that further research can establish whether social media advertising reinforces gender bias.” [9] Much like Gen Z’s ideas of *manifestation*, we shape our algorithm and, in turn, shapes us. Algorithms show us more of what “it” thinks we want to see [10]. Novelist Richard Dawkins introduced the notion of memetics—the social transmission of ideas from one

person to another—in his book “The Selfish Gene.” Alternatively, it could be understood as connected to the French term *même* or to “memory.” [11] Memes, found in our daily feeds, express our unspoken desires succinctly. Their brevity matches our shrinking attention spans, fuelling a cycle of quick communication. Through a performative quality and unexpected twists, they serve as a medium for expressing the ineffable, fostering understanding across the globe; through memes, we connect, transcending geographical boundaries. Social media has become a powerful tool for activism and social justice, and Gen Z feminists have been at the forefront of using it to effect change. Studying and analysing memes created by women can contribute to the future of feminism: What are the underlying themes and women’s anxieties around AI that these memes reveal? What narratives do they propagate? How do women respond to AI as presented today? Contrary to the first essay, this essay deals with the question: what ideas do women project on AI instead of the other way around?

The design discourse prioritises catering to an audience. However, this approach often neglects designing in collaboration with communities, relying instead on assumptions. Even insider perspectives may overlook the diversity and experiences of several minority groups. This issue extends to giving authority to emerging technologies like AI, where biases pose risks, particularly for vulnerable communities. “Built-in biases in AI systems raise the alarm of deepening and rooting existing biases against women and gender and sexual minorities, as these systems are trained on data that may contain sexual, racial, or social prejudice. This can lead to discrimination in these communities in important fields such as employment, loans, or criminal justice, negatively affecting their opportunities and rights.” [12] The urgency of addressing bias in AI is immediate. Women must initiate discussions on reshaping its usage. Memes offer a powerful tool for spreading awareness and dismantling biases with humour. Advocating for ethical AI usage is paramount, prompting questions about alternative approaches and the involvement of women in its creation.

### 3.1 Methodology

In this action research workshop, a group of women in the creative industry were invited to engage in problem-solving with AI and express their thoughts about AI through meme-making, yielding insightful and humorous results. The workshop was designed to get 16 female participants in the USA between the ages of 20 and 35, using social media to make memes around the prompt “If AI could collaborate with me in any way?” Instructions were laid out for women to pick a theme and a template to start their process.



Figure 2. Memes made by participants.

### 3.2 Analysis and Discussion

Women expressed anxiety about the misinformation AI propagated and the misuse of AI without considering its biases against several communities. Their concerns were not only about AI itself but also about its current applications. They envisioned AI playing roles in various sectors of their lives, including careers, relationships, mental health, pop culture, media representation, and sexual orientation. A higher number of memes were created around themes like self-care, expression, and revolt against stereotypical ideas of women propagated through media and, thereby, AI. A key finding of this research is the powerful vision women have for a world where AI supports their needs. Some of the memes produced were not only unexpectedly speculative but also markedly positive, illustrating the potential areas for design exploration and development. Women identified various issues they believe AI can address, focusing on qualities currently missing from their lives or resources inaccessible to them in this society.



Figure 3. Memes made by participants.

## 4 Designing Eve's Eden: Designing a Co-Design Workshop

### 4.1 Methodology

In this co-designed workshop, 18 female participants in the USA, aged 20 to 35 and from diverse fields, were invited to participate along with their existing friend groups. This approach relied on the participants' familiarity with each other, fostering collaboration and idea generation. The workshop was designed to encourage participants to relate to each other and expand on each other's ideas. The workshop centred on women's experiences, employing a playful, toy-like setting reminiscent of childhood dollhouses and scenario building. The instructions for the activity were delivered in two sections. Initially, participants were made to reflect on their own lives using their homes as a metaphor. This exercise was centred around the desired attributes expected from personal devices and home environments. They were asked to claim their space on the map by pinning their house down. Participants write down their answers using the house-shaped template within a provided space. The second part of the activity involved collaborating with friends to collectively construct a world that reflects their relationships and aspirations. The participants collectively brainstormed on the question, "How might AI change their lives? How can we rethink interactions and needs within the public and private space?" For instance, if they want to live down the street from their best friend or organise themselves into groups based on interests, they must find appropriate ways to facilitate those needs. Participants utilised templates for shops, community centres, and spiritual centres. They created establishments ranging from practical concepts like a

shop for feminine products to imaginative ideas such as a rage room for frustrated mothers conveniently located near day-care centres. More creative templates like “dream palace” or “portal” could be used to create more fantastic ideas.

#### 4.2 Analysis and Discussion

The result of the “Eve’s Eden” workshop shows that women not only want tech like AI to actually “care” about them, but they could also benefit from using it as a tool to organise themselves. It must be thoughtfully designed, taking into account existing human relationships and behaviours, while actively working to exclude and counteract discriminatory and misogynistic patterns that may already be present in these interactions. An interesting pattern emerged in the map’s topography while world-building with a group of women who were already friends as opposed to when they did not know each other. Participants would place their houses next to each other or build roads that connected their houses in a way that reflected the group dynamics. An example of this observation is that the slightly older women demarcated their spaces early by “fencing” their land off. When asked to think aloud during the workshop, these women seemed to have a heightened sense of boundaries that were well established as opposed to the younger participants. Another example is that all roads in the world seemed to lead to one participant in the group identified as the most social. Naturally, the community decided to “build” a “gossip centre” near her house. On an individual level, participants had futuristic ideas of how they would envision an ideal life. A woman had added portals between her house and places she wanted to visit since she felt unsafe the moment she stepped out of the house and, as a woman, had always had to plan how to get to the next destination.



**Figure 4.** Eve’s Eden Workshop is conducted in person and online.

## 5 Conclusion

What comes next is a hypothetical question for designers: to use these insights to envision and create products and services. What might interfaces, interactions, and environments that foster community and society through AI look like? The responses to these questions are crucial as they have the potential to make AI more democratic, equitable, inclusive, and diverse. Thus, we arrive at a true hybrid-human intelligence that serves communities and their unique needs. The toolkit's games, meme-making, and world-building formats, though tailored for specific communities, hold potential for broader application with careful cultural and demographic adaptations. Although this methodology is designed for women and AI, can be adapted for other communities, although scalability is not the focus of this study. Customised transformational design processes are necessary for addressing specific needs, but the appropriateness of tools must be carefully considered. Adapting tools for different demographics may require varying levels of effort, such as simplifying games or adjusting tone and facilitation mode based on audience sensitivity.

While the research provides valuable insights for designers to build upon, it tells us that human expectations and experiences with AI differ significantly from the biased responses often generated by AI systems. What we eventually learn is that integrating participatory and co-design methodologies significantly enhances AI's responsiveness to human needs, especially those of underrepresented groups. Ethical considerations, including the emotional safety of participants, are pivotal in ensuring that technology enhances human dignity. This research demonstrates the potential for creating hybrid systems that blend human intelligence with AI, fostering technologies that are both effective and empathetic.

While considering our experiences around AI, it is vital to observe both how we react to it and vice versa. There is potential for reclaiming the woman's narrative portrayed and, unlike social media, is not a one-way street. It could be a powerful tool that can help shape our lives and not just representation through media. Through this technology, we can arrive at design futures with AI that actually understands women and has deep insights into the "common psyche."

Employing humour and sarcasm can effectively reveal AI limitations and mitigate potential harm. Could further research explore the boundaries and effectiveness of humour in various AI applications? AI can serve as a powerful tool for empowerment, allowing women and other marginalised groups to explore identity and assert authority. This narrative empowers women to break free from traditional constraints, providing opportunities to experiment with identity and access new avenues for asserting power and authority.



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