

Cyberfeminism and Gendered Power: Analyzing the Impact of Virtual Assistants on Submissive Behaviour in Digital Spaces; A Critical Review of UNESCO's "I'd Blush if I Could" Report

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Abstract

Artificial intelligence (AI) and virtual assistants like Siri, Alexa, and Google Assistant have become integral to daily life. However, concerns have emerged about the gender biases these technologies can perpetuate, as seen in their passive and submissive responses to verbal harassment. This paper reviews UNESCO's "I'd Blush If I Could" report, which highlights how these biases reflect broader gender inequalities in AI. The paper argues for the need to promote gender-neutral voice assistants, close the digital skills gap, and increase women's participation in both technical and non-technical roles in the tech industry. These actions are essential for creating a more equitable future for AI technology.

Keywords: AI Gender Bias, Virtual Assistants, Cyberfeminism, Gender-neutral Technology, UNESCO Report

In recent years, the rise of artificial intelligence (AI) and virtual assistants has revolutionized the way we interact with technology. Devices like Siri, Alexa, and Google Assistant have become an important part of daily life, performing a wide range of tasks, from managing schedules to answering questions. However, as these technologies gain popularity, concerns about their inherent gender biases and the power dynamics they perpetuate have surfaced. One critical study in this field is UNESCO's *I'd Blush if I Could* report, which highlights how these virtual assistants often respond to verbal harassment and commands with a passive, submissive tone, reinforcing gendered stereotypes.

Cyberfeminism is a feminist approach that foregrounds the relationship between cyberspace, the Internet, and technology. Cyberfeminism started in the 1980s, based on the ideas of feminist thinker Donna Haraway in her *A Cyborg Manifesto*. In this manifesto, she explains that the internet can be a tool to fight patriarchy, break down the gender binary, and help achieve feminist freedom. She believes that women should shape the internet to

challenge and change the current social order. AI systems that are designed without considering the needs of all people can lead to discrimination and inequality. Many gender biases still exist in technology and online spaces. Even tech companies and AI software often reinforce stereotypes through their algorithms.

Studies show that facial recognition technology is biased. The error rate for light-skinned men is 0.8%, compared to 34.7% for darker-skinned women, according to a 2018 study titled "Gender Shades" by Joy Buolamwini and Timnit Gebru, published by MIT Media Lab. The problem is that these algorithms were trained on mostly lighter-skinned and male faces, which makes them less reliable for underrepresented groups, particularly women of color. This highlights how gender and racial biases are embedded in AI technologies.

Technology does not exist outside of the biases and racism that are prevalent in our society. Studies show that facial recognition is least reliable for people of color, women, and non-binary individuals. This can be life-threatening when the technology is used by law enforcement. Another study shows that gender-blind AI designs are leading to unfair credit scoring for women. Biased AI recruiting tools have automatically filtered out job applications from women. Tech giants like Google and Facebook have only 10-15% of AI specialists as women. Only 13.83% of AI research publications are authored by women.

Amazon's recruitment AI, tested over several years, was found to be sexist and had to be scrapped. The system was trained on data from mostly male applicants, which led it to favor male candidates. By 2015, it was clear that the AI was penalizing resumes with the word "women," showing its bias. Despite adjustments, the system was unreliable and eventually abandoned, though recruiters had briefly used it. Amazon's workforce is 60% male, and concerns about biased AI in recruitment are growing, with many HR managers expecting AI to play a bigger role in hiring within the next five years.

UNESCO's report calls for urgent action to close the digital skills gap between genders by addressing these biases through education and promoting the development of gender-neutral voice assistant technology. The report, titled "I'd Blush If I Could," is named after a response Siri gave when called a "bitch" by a user. While the program has been updated to provide a more neutral response, the fact that this happened in the first place needs to be addressed. According to the UNESCO report, women are four times less likely to know how to program computers and 13 times less likely to file a technology patent. The more men write the programs, the more gendered the AI algorithms become. Whenever asked questions that would be considered sexist by a human female, Siri's replies are coy and flirtatious, while Google's assistant very helpfully finds something from the internet and brings it up to you.

A spokeswoman for Microsoft has previously said the company researched voice options for Cortana and found that "a female voice best supports our goal of creating a digital assistant." The report calls on companies to take action, including stopping the default use

of female voices for digital assistants, exploring gender-neutral options, and programming assistants to discourage gender-based insults and abusive language.

To fight this phenomenon, the report suggests a simple solution: get more women into the digital and technological workforce. For that to happen, opportunities need to be created. Women need to be encouraged to study and pursue these careers. Employers need to recruit women and, if qualified, promote them as well. Holding positions of power will enable them to make the necessary changes without fear of backlash. To eliminate gender biases in the tech industry, cyber feminists advocate for women to take up more space in digital spaces, creating platforms that center women's voices and perspectives, like feminist websites, blogs, and digital art projects.

The report urges developers and policymakers to actively work towards creating gender-neutral voice assistants, implement educational initiatives to address digital literacy gaps among women, and design technology that actively combats gender bias. We are living in a post-human world where technology is more advanced than ever. People spend more time on the internet than with their families; students, children, and employers are all using it. Technology has become an integral part of everyday life. As technology influences a mass of people, it should be gender-neutral. This creates a preconceived notion that women are flirtatious, submissive, and nurturing. This must end.

UNESCO said the relatively recent introduction of such technology provides an opportunity to develop less damaging norms in its application. It called for digital assistants not to be made female by default and urged technology firms to explore the feasibility of developing a neutral machine gender that is neither male nor female. It also recommended programming such technology to discourage gender-based insults and abusive language, as well as designing assistants to be interchangeable across devices and defining them as "non-human" at the outset of interactions with human users. Women can make a significant impact in the AI industry by pursuing non-technical roles such as project management, business development, marketing, ethics, governance, and sales. These positions often require strong communication and organizational skills, along with the ability to translate complex technical concepts for non-technical stakeholders. Women bring diverse perspectives and experiences that can enhance the AI industry, driving its growth and success in these crucial non-technical areas.

In conclusion, the UNESCO report focuses on the urgent need to address gender biases in AI, pointing out the importance of closing the digital skills gap and promoting gender-neutral technologies. The findings show that women are underrepresented in the tech industry, particularly in roles related to AI development, which leads to biased algorithms. These biases, as seen in voice assistants like Siri and Google Assistant, often reflect and reinforce harmful gender stereotypes. To address these issues, it is essential to create more inclusive environments that encourage women to participate in all areas of AI, from technical

development to non-technical roles such as project management, business development, and ethics. By promoting diversity in the AI workforce and ensuring gender-neutral technologies, we can help create a more equitable and just digital future. Immediate action is required from governments, educational institutions, and tech companies to reduce gender disparities, support women's involvement in AI, and ensure that AI systems serve all people fairly.

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