EQUITY IN ACTION

EXPLORING GENDER BIAS IN SMART TECHNOLOGIES

FOCUSING ON GENDER STUDIES AND AI POWERED ASSISTANTS

# Introduction: The Gendered Design

Starting Point

Technology tools have become so embedded in our routines that we often overlook their design, their voices, and the roles they play in our lives.

Examples

Siri's initial voice was female, Alexa found as a female-voiced helper. These design choices reflect societal norms that tie women to caregiving roles. Even with male voice options, the default remains female.
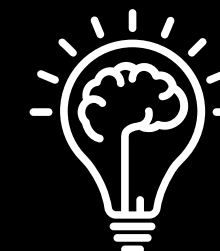
Motivation

The problem isn't just about voices—it's about representation and equity. If today's smart devices perpetuate bias, **how can we trust tomorrow's technologies to be fair, equitable, and inclusive?**

Objective

Our aim is to explore how gender norms and biases shape the design, implementation, and societal adoption of technology. These biases not only perpetuate stereotypes but also reinforce existing inequalities, undermining inclusivity and hindering equitable access to opportunities in our increasingly digital world.

Our objective is to draw literature in gender studies and human-computer interaction (HCI), as well as cases on AI-powered assistants (e.g., Alexa, Siri). We aim to bridge the gap by raising awareness in gender-inclusive technology design.

Beijing Declaration and Platform for Action

Objective J.2

Promote a balanced and non-stereotyped portrayal of women in the media.

AI and Gender Stereotypes

Female-gendered voice assistants perpetuate traditional roles and gender stereotypes. Portrayals limits perceptions of women's roles in both technology and society.

Promoting Gender Equality

By examining the gendered design of AI, the project contributes to reducing stereotypes in media and ICTs. Our awareness campaigns aim to show these norms and foster a more inclusive technology.

Call to Action

To achieve gender equality in media and communication systems, we must address biases in smart technologies and their societal adoption.

Focus

Our approach starts with a foundation in literature analysis. By reviewing existing studies and data, we identified how gender norms and biases shape the design and societal adoption of technologies like AI-powered voice assistants.

Building on this foundation, project shifted to advocacy through an awareness campaign. Using insights from our research, we aim to challenge stereotypes, spark conversations, and promote inclusive practices in technology design.

Key Themes in Literature Review

Feminization of Voice Assistants

- Default to female voices and names.
- Aligns with traditional caregiving and subordinate roles.

AI technologies often default to feminized voices, mirroring traditional roles of subservience and care"

(Elder, 2020)

Reinforcement of Stereotypes

- Politeness, passivity, and nurturing behaviors.
- Tolerance of inappropriate behavior and sexual harassment

"Virtual assistants tolerate inappropriate behavior, normalizing societal imbalances" (UNESCO, 2019).

Responses to Harassment

- Often neutral or submissive.
- Insufficiently challenge sexist behaviors.

"Siri's early response, 'I'd blush if I could,' reflects outdated modesty norms" (Walker, 2020).

Broader Gender Representation Issues

- Confinement of femininity to assistive roles.
- Masculinity associated with authority and expertise.

"The association of masculinity with authority perpetuates systemic biases in AI" (UNESCO, 2019).

The Case of Virtual Assistants

Gender Disparities

- Women represent about 30% of the AI workforce globally.

- In the EU, only 16.7% of ICT roles are held by women.

Stereotypes in Virtual Assistants

- Siri, named by a co-founder after the Norwegian word for "beautiful woman who guides to victory", exemplifies how gender stereotypes permeate AI.

- 2021 analysis of user-generated content found that up to 76.5% of users referred to Alexa as "her", and over 81% did so for Siri, a strong tendency to assign a female gender from society. (Source)

- Siri and similar assistants have defaulted to female voices, a link to femininity with subservience.

The Story Behind Siri and The Man Who Made Her

- Apple (2018): Internal guidelines instructed Siri to avoid discussing feminism, reinforcing a lack of attention to gender biases in AI design.

- OpenAI (2024): Released a voice assistant with a flirty voice resembling Scarlett Johansson, without her consent, raising concerns about the exploitation of female voices and the perpetuation of stereotypes.

- Amazon's 25% of board members are women.

- Apple achieved gender parity on board in January 2024.

Output

Communication Project: REFRAMING AI

The campaign will include a mix of awareness-raising content, such as infographics, videos, and expert interviews, alongside interactive features like polls and discussions. Our goal is to:

- Educate young people about gender biases in smart technologies.
- Highlight the real-world impact of these biases.
- Encourage followers to take action and challenge biases in their own digital lives by fostering engagement and open dialogue.
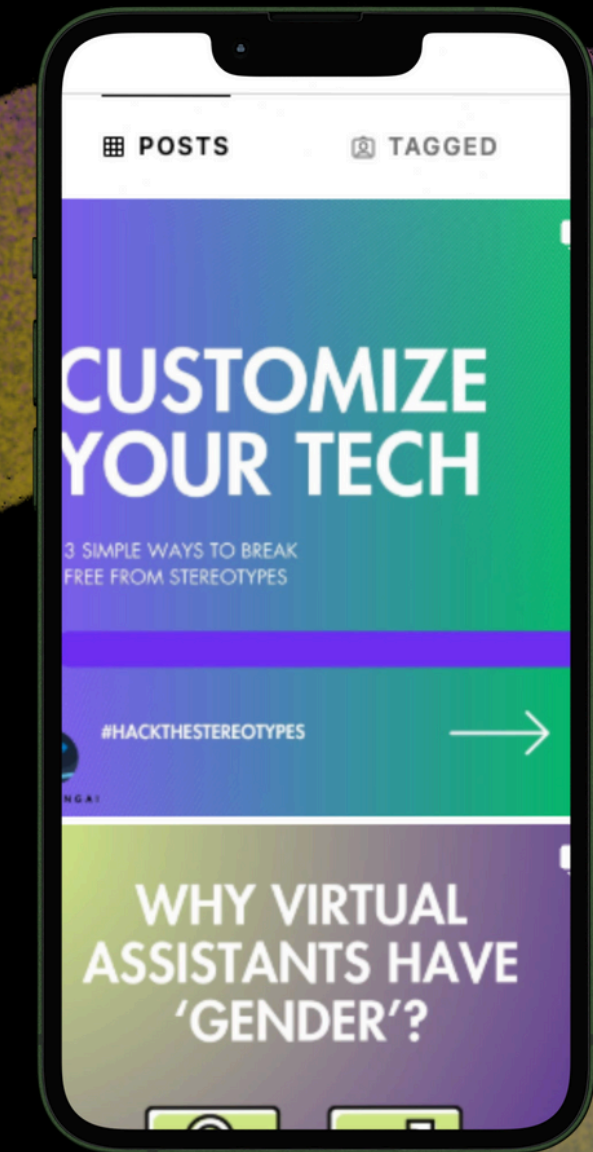
REFRAMINGAI

Reframing AI

Target Audience: The 20 to 30 age group is one of the most engaged and influential demographics on social media platforms, making them ideal advocates for change in the tech industry. This generation is actively shaping trends, driving conversations, and influencing technological developments

Join the Movement: Advocating for Change
We invite our audience to join the conversation by sharing content, using dedicated hashtags, and participating in discussions around gender biases in smart tech.

Reframing AI
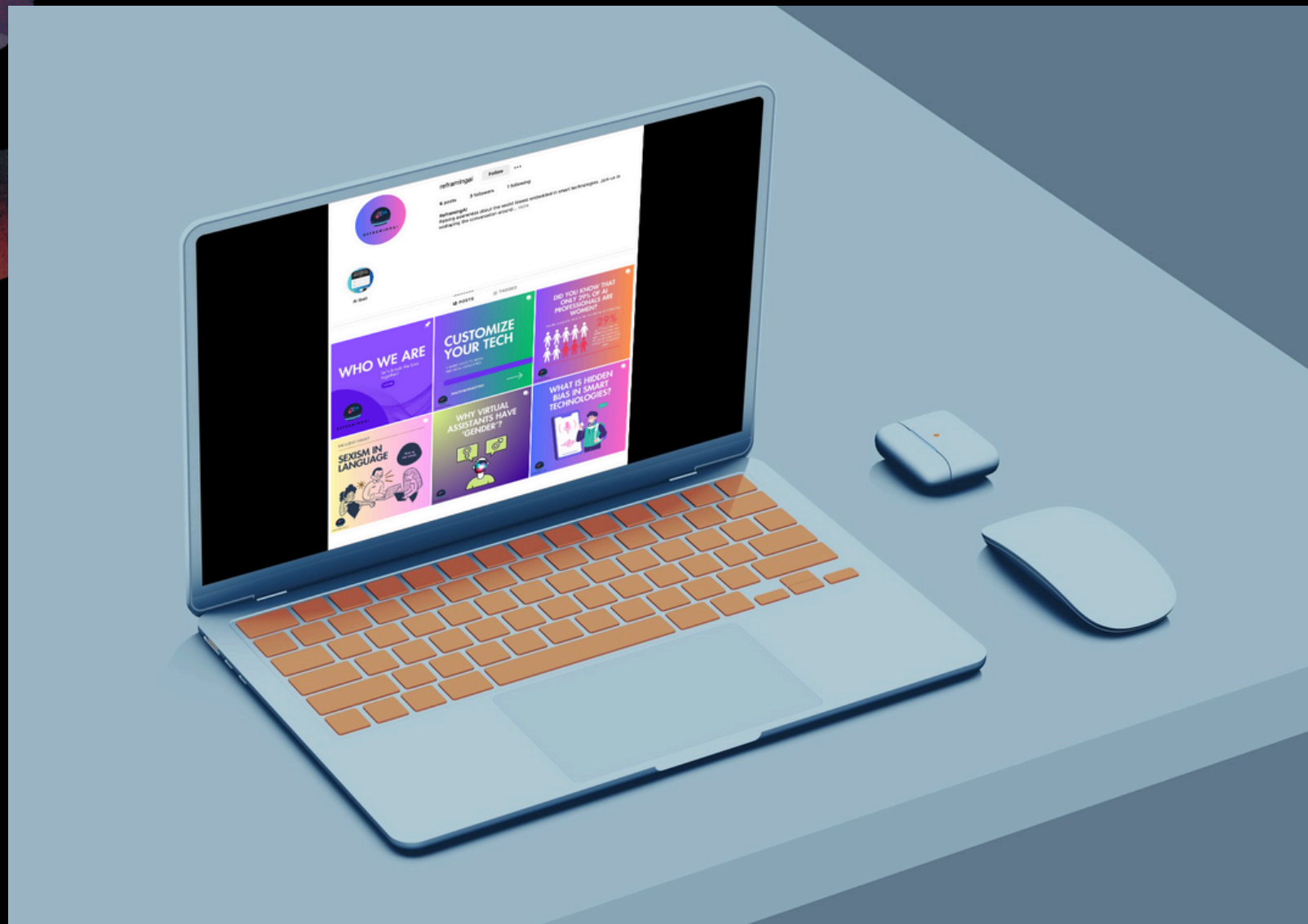
The campaign will feature a dedicated Instagram page, designed to engage and inform the audience through a structured approach:

- Curated Posts: Carefully crafted content that addresses various facets of gender bias in smart technologies.

- Thematic Sections: Posts will be organized into sections, each focusing on different aspects of gender bias:

- Interactive Stories: Engaging features to encourage direct audience participation:

https://www.instagram.com/reframingai/

Social Media Series

LUN	MAR	MER	GIO	VEN	SAB	DOM
27	28	29	30	31	1	2
Hackthestereotypes: Customize your tech 3	Quiz 4	Inclusive insight: Sexism in language 5	Q&A 6	Hidden biases: Female voice 7	8	9
Hackthestereotypes: Stereotypes in fitness apps? Hack them! 10	Quiz 11	Inclusive insight: Lgbtqia+ community 12	Q&A 13	Hidden biases: Fitness app 14	15	16
Hackthestereotypes: Give your devices a new name! 17	Quiz 18	Inclusive insight: Identity first vs person first language 19	Q&A 20	Hidden biases: Gender bias 21	22	23
Hackthestereotypes: Customize your tech 24	Quiz 25	Inclusive insight: How to communicate in accessible way 26	Q&A 27	Hidden biases: Answer of AI 28	1	2
3	4	5	6	7	8	9

Hack the Stereotypes

Practical tutorials and tips to customize your tech experience. Think renaming your virtual assistant, switching to neutral voices, or disabling gendered recommendations in apps and devices.

Inclusive Insights

It is a dedicated section offering practical tips for fostering inclusive communication. Each post provides actionable advice on language, tone, and strategies to create messages that respect diversity and promote equity.

Hidden Biases

Insights into gender stereotypes embedded in algorithms: why are some voice assistants designed with female voices? Why do some fitness apps suggest different workouts based on gender? Explain simply how these biases arise and how we can overcome them.

Stories: Quiz and Q&A

Our interactive stories will feature quizzes and Q&A sessions to engage the audience and spark meaningful conversations.

Group members

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Thank you for you attention!