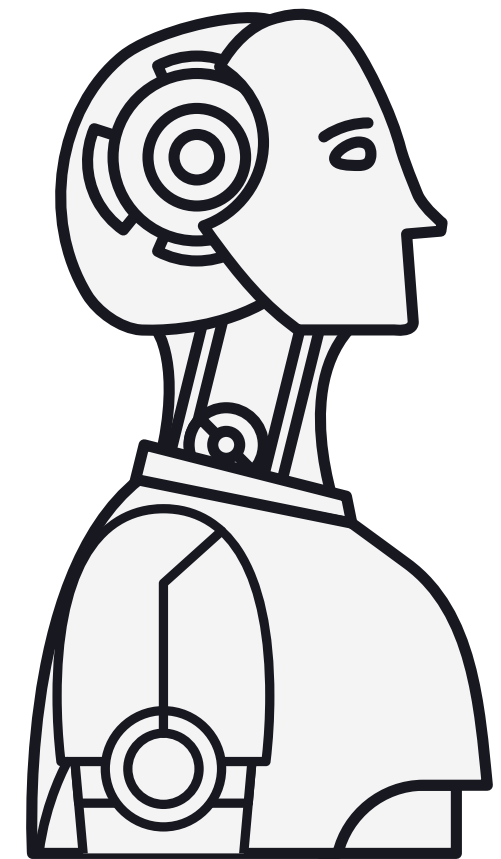


# Table of Content

- **Poll first!**
- **Literature review**
- **Reasons behind robot genders**
- **Underlining Problems**
- **Discussion**



# WHEN YOU THINK ABOUT THESE ROBOTS...

[HTTPS://WWW.MENTI.COM/5QCBECSTRON](https://www.menti.com/5QCBECSTRON)

- HEALTHCARE-NURSING
- HOUSEKEEPING
- HEALTHCARE-SURGERY
- WEAPONRY
- MANUFACTURING

## ARE THEY MALE OR FEMALE?

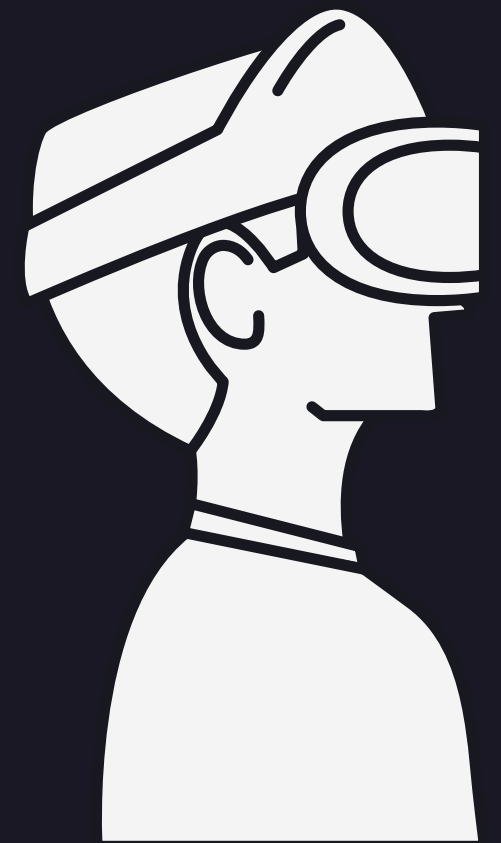


**"Siri and Alexa Reinforce Gender Bias, U.N. Finds"**

-- The New York Times

**"This is why AI has a gender problem"**

-- World Economic Forum



# CASA Paradigm

**the Computers are social actors paradigm**

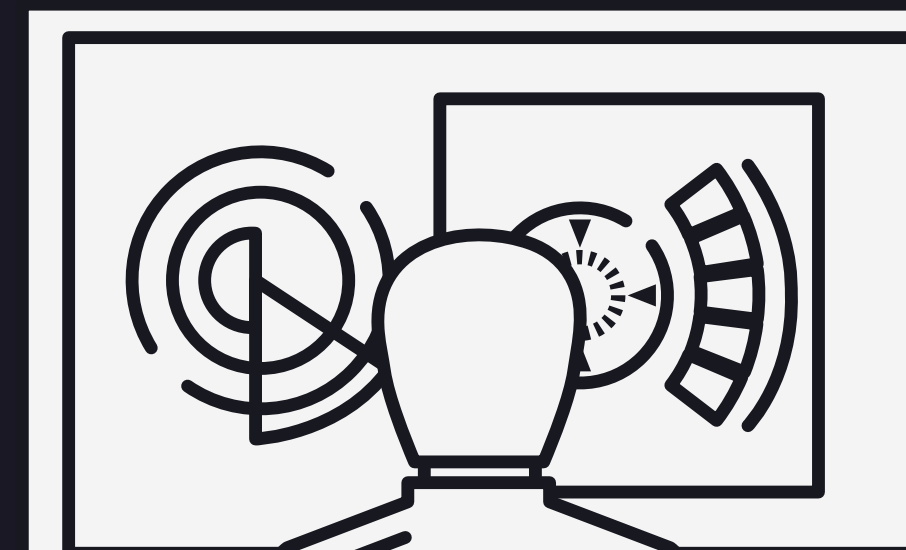
- **show that the human-computer relationship is fundamentally social**
- **The experiments: tutoring, testing, evaluating (Nass 72)**



Nass, Clifford & Steuer, Jonathan & Siminoff, Ellen. (1994). Computer are social actors. Conference on Human Factors in Computing Systems - Proceedings. 204. 10.1145/259963.260288.

## 5 studies and their results (Nass 77)

1. Social norms are applied to computers. (politeness)
2. Notions of “self” and “other” are applied to computers.
3. Voices are social actors. Notions of “self” and “other” are applied to voices.
4. **Computers are gendered social actors. Gender is an extremely powerful cue.**
5. Computer users respond socially to the computer itself.



- **“PRAISE FROM MALES IS MORE CONVINCING THAN PRAISE FROM FEMALES,”**
- **“MALES WHO PRAISE ARE MORE LIKABLE THAN FEMALES WHO PRAISE,”**
- **AND “FEMALES KNOW MORE ABOUT LOVE AND RELATIONSHIPS THAN MALES,”**



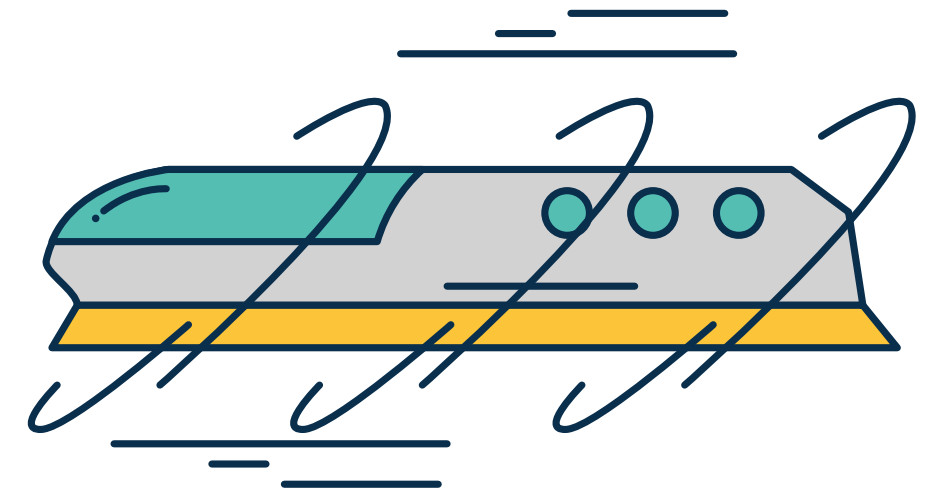
**(Nass 75)**



# STEREOTYPES, GENDER, AND ROBOTS

1. People will show a more positive response when (a) the gender of a healthcare robot is female rather than male and when (b) the gender of a security robot is male rather than female.
2. People will have a more positive response when (a) the personality of a healthcare robot is extroverted rather than introverted and when (b) the personality of a security robot is introverted rather than extroverted.
3. Users' (a) attitudes, (b) subjective norms, (c) perceived behavioral control, and (d) perceived trust of a social robot positively affect their acceptance of the robot.

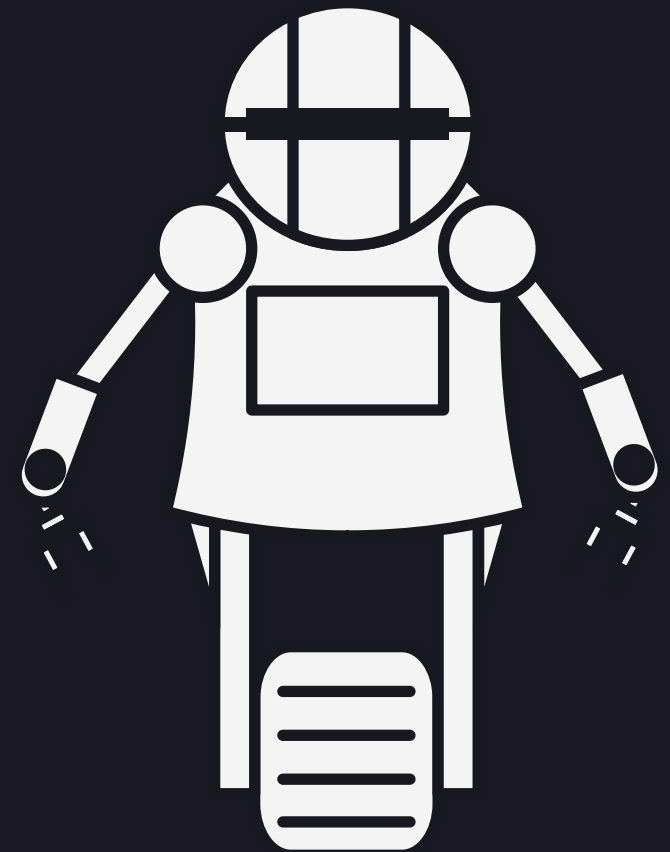
(Tay, Jung, Park 78)





# WHY DO WE GENDER ROBOTS?

- PEOPLE WELCOME CERTAIN TASKS TO BE DONE BY ONE GENDER MORE THAN THE OTHER
- EASIER FOR SOME TO ACCEPT ROBOTS INTO THEIR HOMES



# UNDERLINING PROBLEMS

## -REINFORCING GENDER INEQUALITY

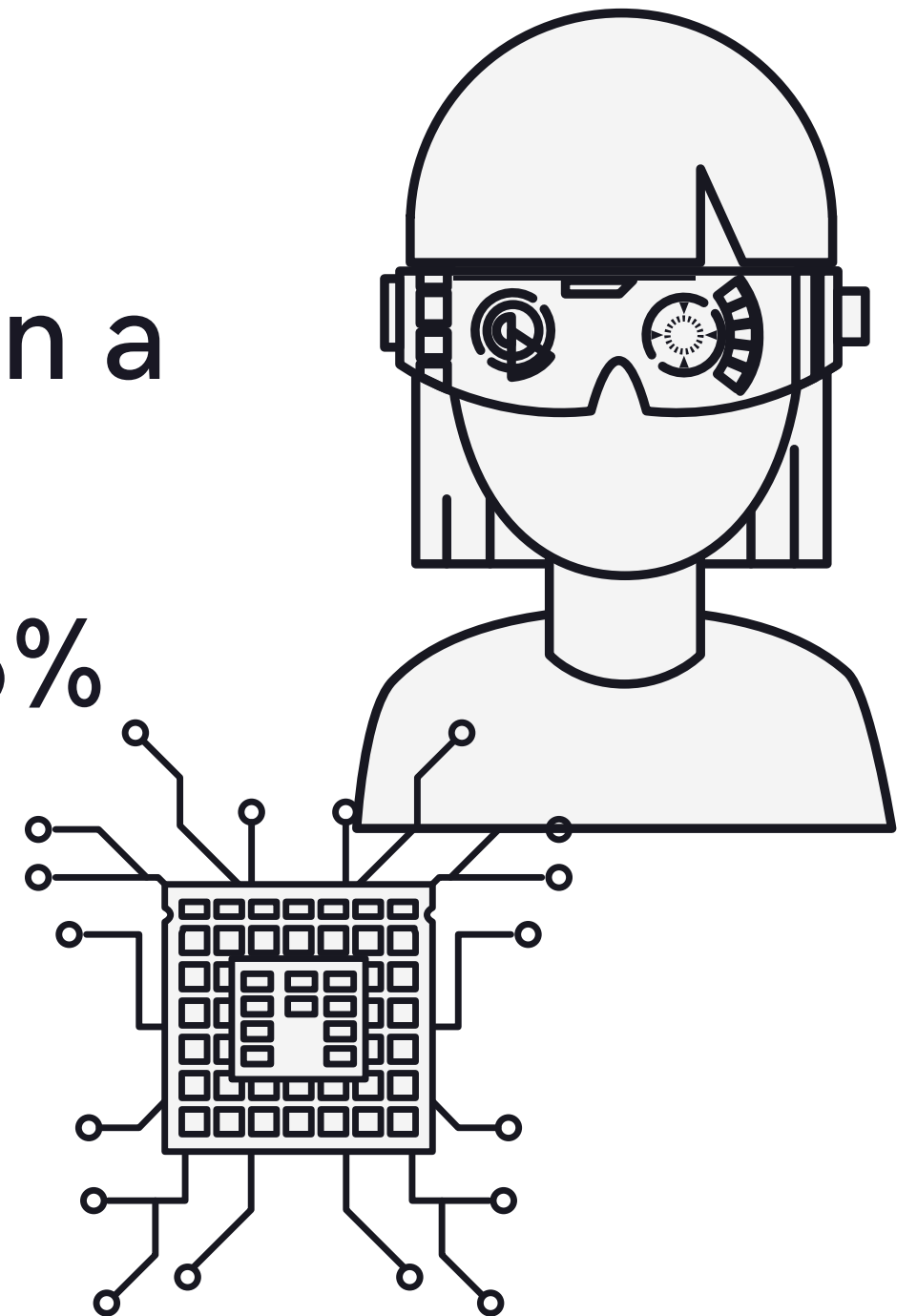
08

"Why do most virtual assistants that are powered by artificial intelligence by default have female names, female voices, and often a submissive or even flirtatious style?"

-- "women only 12% of AI researchers and 6% of software developers"

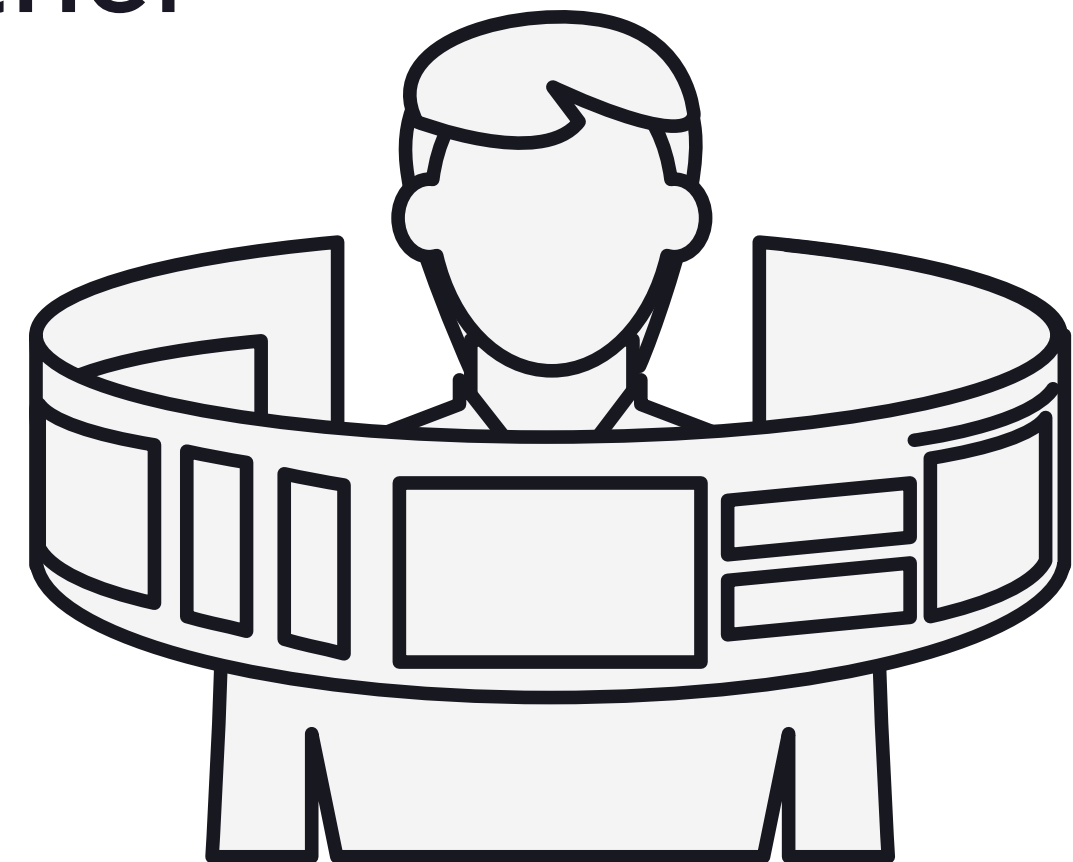
Specia, Megan. The new york times. Published on 05.22 2019.

<https://www.nytimes.com/2019/05/22/world/siri-alex-a-gender-bias.html>



"lost in that conversation is research showing that people like the sound of a male voice when it is making authoritative statements, but a female voice when it is being "helpful," further perpetuating stereotypes."

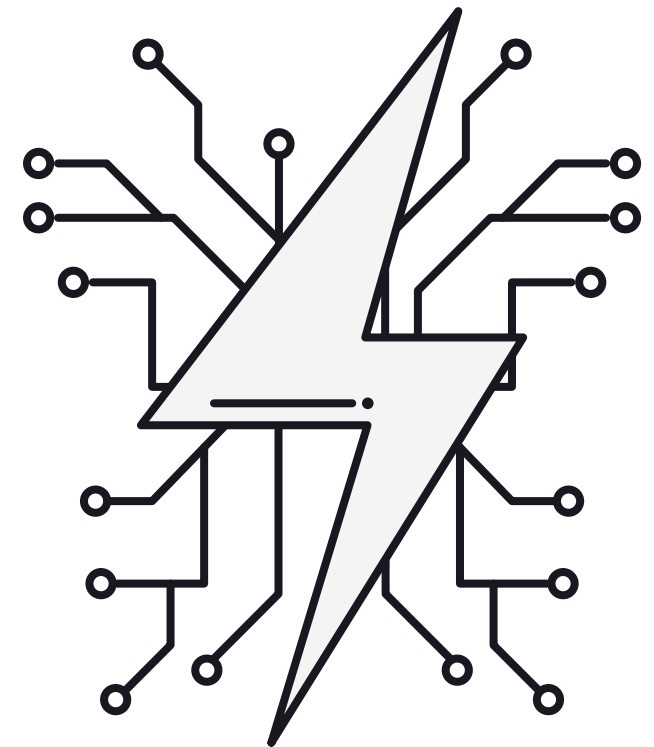
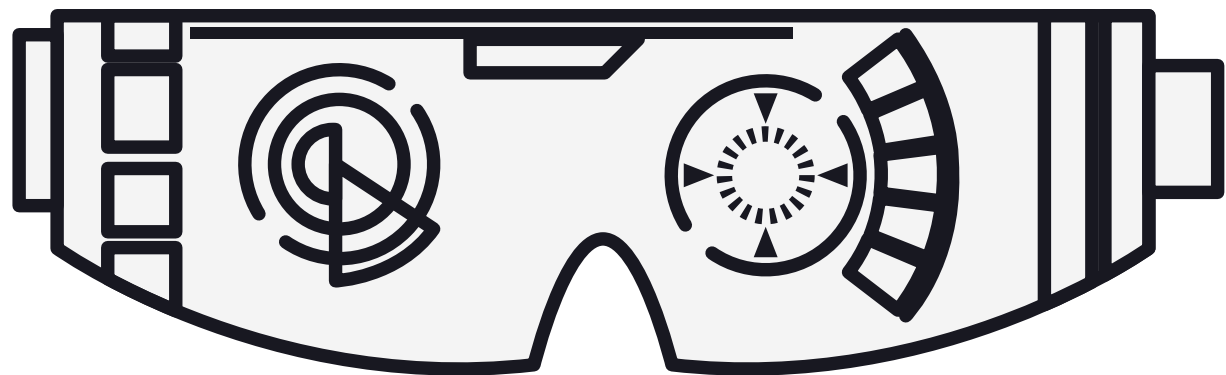
Specia, Megan. The new york times. Published on 05.22 2019.  
<https://www.nytimes.com/2019/05/22/world/siri-alex-a-gender-bias.html>

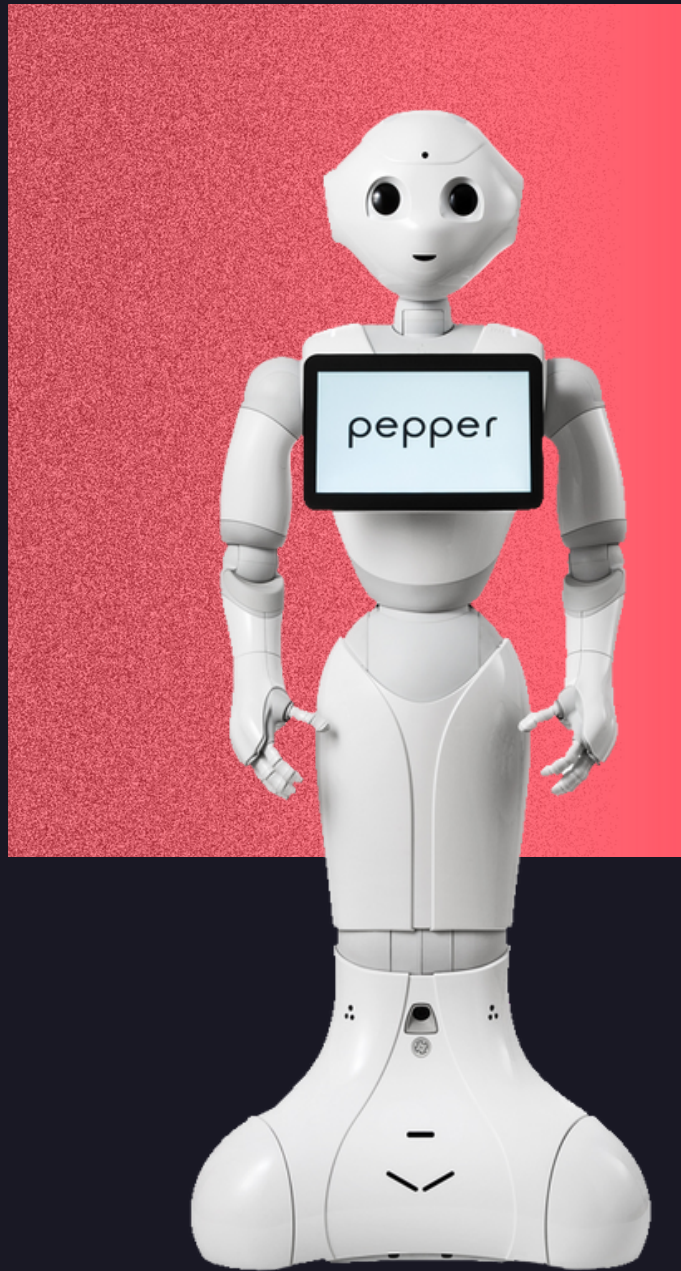


# THE WORLD'S FIRST GENDERLESS VOICE ASSISTANT - Q

[https://www.youtube.com/watch?v=kRauhbmZqJC\\_Y](https://www.youtube.com/watch?v=kRauhbmZqJC_Y)

Created by VICE





# SHOULD THEY BE GENDERED?

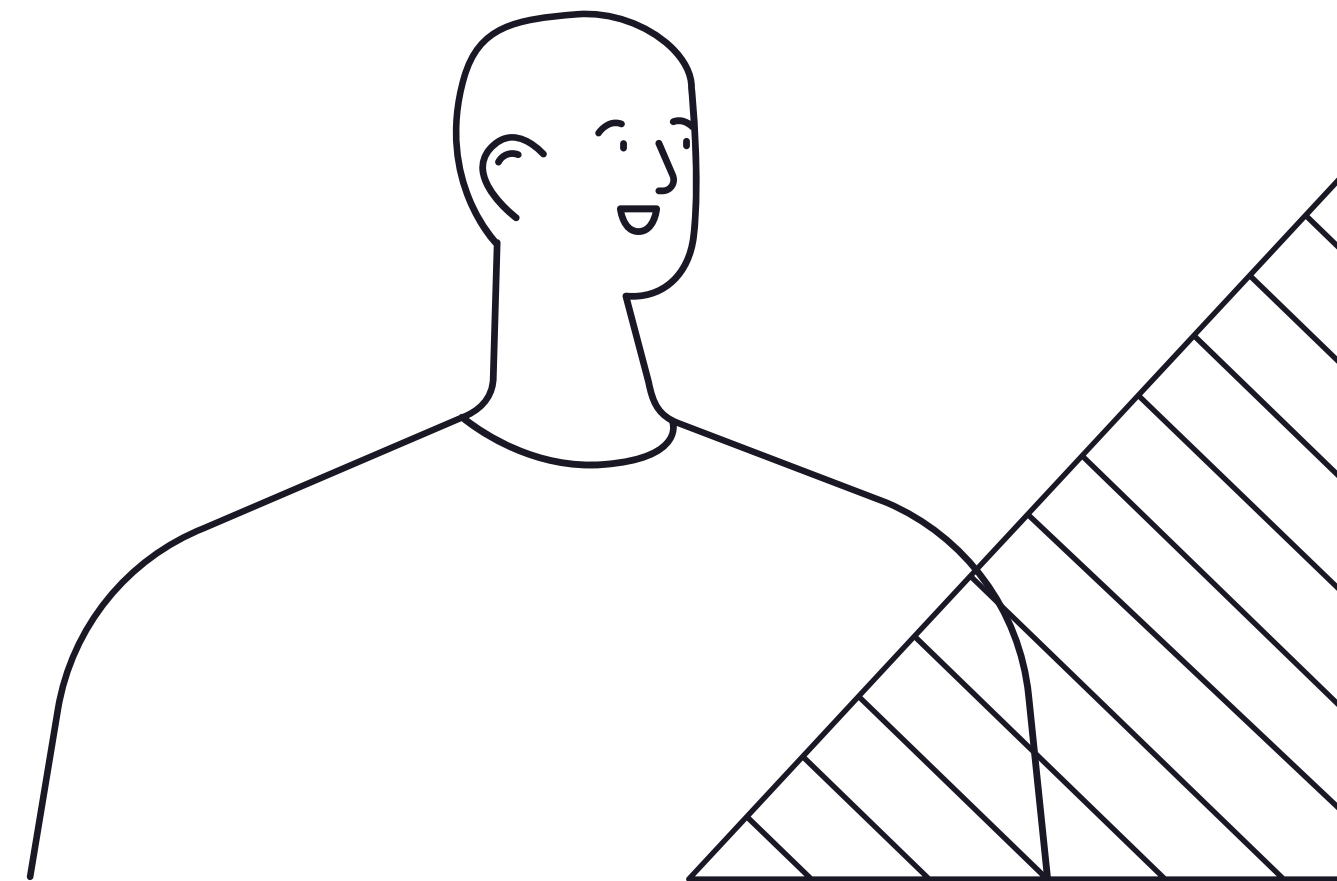
- Pepper is a social robot created by softbank in Japan
- Gender perceived mainly by voice
- Pepper uses childish tone to avoid being identified in gender
- Discussion of robot touch, should it follow human convention? in the context of social touch?
- Study shows participants responded to the request to touch the plastic, childlike robot in the same way they would have responded to a human.
- effective robot-initiated touch will depend on robots following rules of appropriate social (human) behaviors.

Schiebinger, Londa. "The robots are coming! But should they be gendered?"

<https://web.stanford.edu/dept/HPS/Schiebinger%20AWIS%20Robots%202019.pdf>

# POSSIBLE SOLUTIONS

1. Challenge current gender stereotypes
2. Design customizable robots, where users choose features
3. Design "genderless" robots
4. Design gender-fluid robots, prioritizing gender equality
5. Step out of human social relations
6. Design "robot-specific" identities that bypass social stereotypes"



Schiebinger, Londa. "The robots are coming! But should they be gendered?"  
<https://web.stanford.edu/dept/HPS/Schiebinger%20AWIS%20Robots%202019.pdf>





# ERICA BY HIROSHI ISHIGURO

Professor Ishiguro, the creator of Erica, famously said that he was trying to make “the most beautiful woman” in Erica.



Gucci Advertisement



A red triangle graphic with a black outline, pointing towards the top-left corner of the slide.

# DISCUSSION

- Do you think there is a need to gender robots?
- If not what do you think gender-neutral robots are the way to go?
- In the future, if we do create gendered robots how do we protect their rights?
- Do you think there is a way to have robots step out of human social relations?
- Can we regulate creators on what gender of robots they are allowed to build?

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**THANK YOU SO MUCH FOR LISTENING!**

