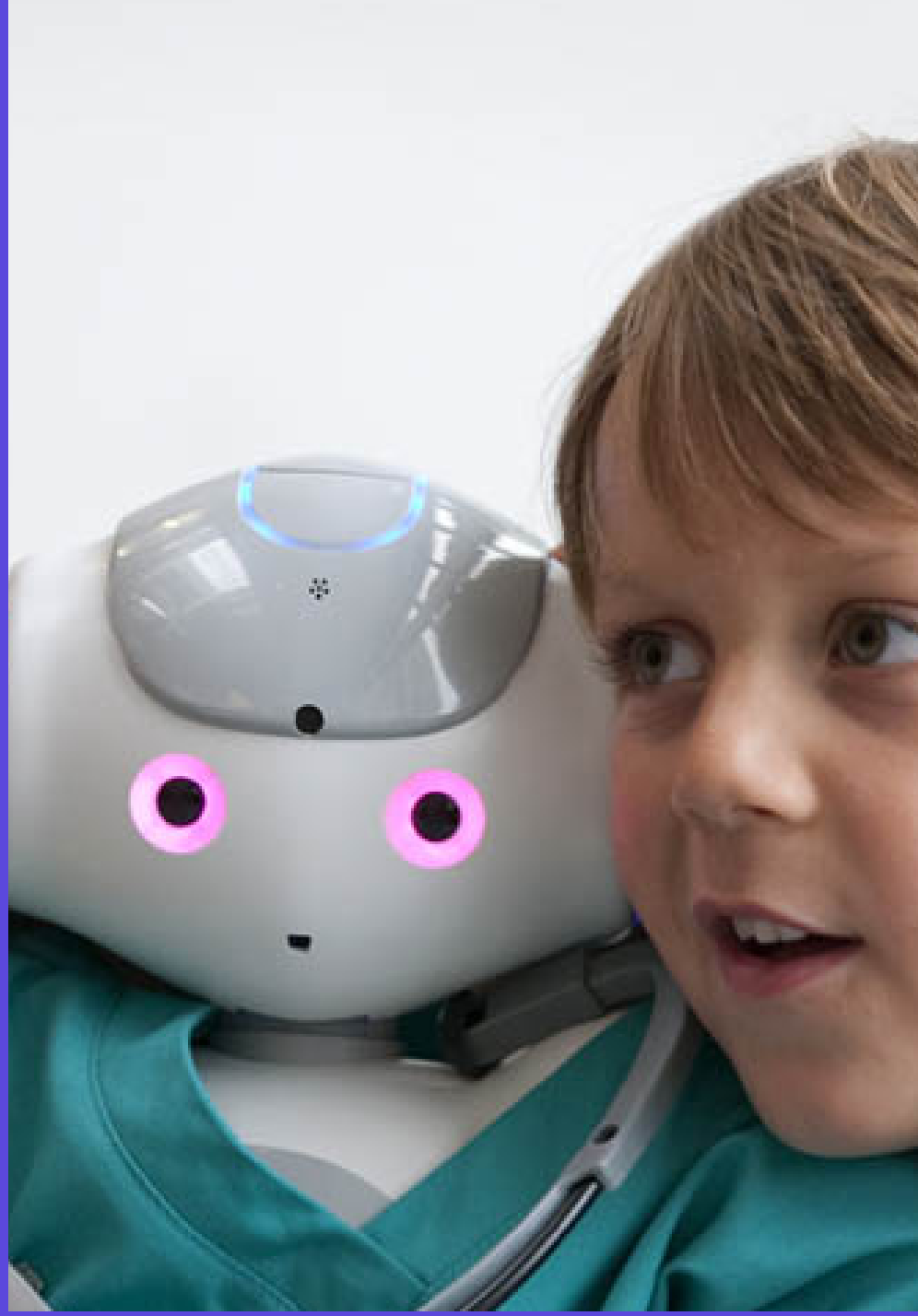
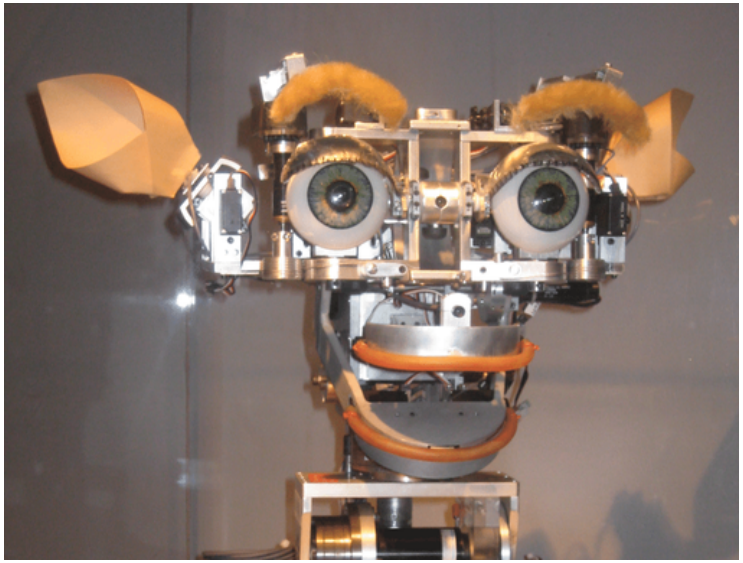
Encounters with Kismet and Cog: Children Respond to Relational Artifacts

Paper Review



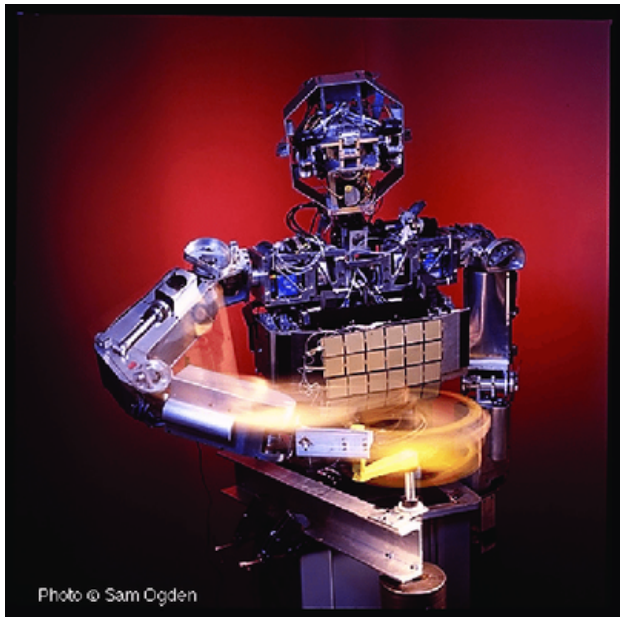
FER – HRI
Sérgio Estêvão

Kismet and Cog



Kismet

Photo: https://www.researchgate.net/figure/Kismet-a-robot-designed-to-explore-the-concepts-of-sociable-robots-9_fig4_220397446



Cog

Photo: https://www.researchgate.net/figure/Kismet-a-robot-designed-to-explore-the-concepts-of-sociable-robots-9_fig4_220397446

Overview

- Studied how children reacted, perceived, and interacted with humanoid robots;
- Aimed to demystify the machines and the impact of transparency that the general public has;
- Used Kismet and Cog robots to measure and evaluate the children's behaviors;
- Both robots were programmed to engage with the children differently, like copying their movements or using audio signals to detect word choices and reply to questions.

Findings

- Children can maintain a solid emotional bond with robots even after learning their mechanical nature;
- Only in a few exceptions, were children uninterested to the point of being unwilling to understand the robots in terms of underlying mechanisms;
- Most of the children reported they enjoyed the company of the robot, and the main issue was when the robot was not responsive.
- The ELIZA effect was highly present in most of the cases.

ELIZA effect: https://en.wikipedia.org/wiki/ELIZA_effect

Evaluation

Pros

- Insights into the emotional and intellectual connections that children form with robots;
- Two distinct robots for tests, Kismet and Cog;
- It opens the discussion and emphasizes the potential for emotional relationships between children and robots.

Cons

- It does not address the long-term effects or potential impact of children's age on the results;
- Does not discuss the societal implications of children forming emotional bonds with robots.

Other Inovations

Moxie

- Moxie is a therapeutic robot created in 2021;
- Designed for children 5 to 15 years old who have Mental Behavioral Developmental Disorders (MSDs);
- Moxie robots can recognize the user's face, voice, object, and location and identify the user's facial emotions and voice expressions.

More information: https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9759670