Social Robotics

Albert-Ludwigs-Universität Freiburg

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Rosie (60s & 80s)

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Outline



- Today: Attempt to understand the concept of a social robot (and the 'big questions' related to it) by reflecting upon the way how social robots are displayed in pop culture.
- Next Tuesday: Researchers' attempts to define and systematize social robotics research.

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Rosie?



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Marvin (80s & 2000s)



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Chappie (2015)



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Marvin?



■ Why is there no Marvin in our homes?

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Chappie: Discussion



- What are the pros and cons of learning for social robots? What is the alternative to learning?
- Should there be robotic police officers?

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Ex Machina (2015)



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Ex Machina: Discussion



- What's the point in building robots like Ava?
- What's the difference between a human and a robot?
- Is 'being programmed' a valid difference?
 - Robot being programmed to flirt vs. Human being programmed to perceive the robot as flirting

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Comparison: Erica



Android research by Hiroshi Ishiguro and colleagues (Osaka University)





Westworld (2016)



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Westworld: Discussion



- Should it be forbidden to abuse robots?
- Should robots have rights?

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Real Humans: Discussion



- Can robots be the better humans?
- What's the impact on human relationships if humans prefer robots as friends and partners?
 - A chance for less lonliness, less disappointment etc.?

Real Humans (2012)



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Jibo (2014)



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Buddy (2015)



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Conclusions



- 'Broad questions in social robotics'
 - What's the purpose of social robots?
 - What do social robots reveal about human nature?
 - How do social robots affect human behavior, thinking, relationships?
 - How to design a social robot for a specific role or task? How to design interactions?
 - Do we need regulations that restrict what kind of social robots are allowed?
- Next Lecture: Introduction to Social Robotics as a Science, more systematic access, attempts to define social robots.
- Exercise Sheet: Design your own social robot along several guiding questions. Exercise sheet is already on the web! Presentation at Nov 2nd.

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Jibo & Buddy: Discussion



- Do we really need such robots?
- Can they keep what they promise?

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