

HRI Reading Group

@ Instituto Superior Técnico

Meeting #2 (29 Oct 2018)

Paper

Eyssel, F. (2017). **An experimental psychological perspective on social robotics**. *Robotics and Autonomous Systems*, 87, 363-371.

Psychology & HRI

- HRI: multidisciplinary, interdisciplinary, or hybrid?
 - Hybrid: multidisciplinary part might help define the concepts/terminology
 - Multidisciplinary might be promoted at a group level rather than individual level
- How can Psychology benefit from HRI?
- How should education curricula be adapted for multidisciplinary fields?
 - Institutions currently do not accommodate/acknowledge multidisciplinary
- How can we improve the existing metrics to assess research quality?

The experimental approach—a silver bullet or just more artificiality in creating Artificial Intelligence?

- What defines an experiment / What are the challenges in HRI?
 - Testing hypothesis
 - Inferring cause-effect relations
 - Results are confined to the exact setting of the experiment (artificially)
 - One of the challenges is framing the results regarding many factors (e.g., novelty, time, exposure to robots, pop culture, sci-fi, video-games...)
- When is an experiment needed? What are other options for non-experimental studies?
 - Experimental (Comparing experimental conditions)
 - Ethical issues when the control condition is human performance
 - Validation of a system/tool in terms of performance (might be compared to some baseline)
 - Collect biomechanics data
 - Observational studies (getting qualitative data)
 - Extracting deep knowledge and/or correlating data/measures

Exercise

- Can you come up with an unexpected marriage between robotics and another field?
 - Law (regulate legal aspects)
 - Sports (training, optimizing team/athlete performance)
 - Biology (simulate swarms)
 - Politics (debate against someone)
 - Art (generate portraits)
 - Medical (teach to control date anxiety)

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Meeting #3 (5 Nov 2018)