

Introduction to the “Shaping Future Interactions with Social Robots and Service Robots” Minitrack at HICSS 57

Ruth Stock-Homburg
Technical University Darmstadt
rsh@bwl.tu-darmstadt.de

Lea Heitlinger
Technical University Darmstadt
lea.heitlinger@bwl.tu-darmstadt.de

Abstract

With social robots on the rise, this HICSS-57 minitrack on shaping future interactions with social and service robots aims to present novel perspectives on the successful integration of social robots into business and service environments. The presented findings are not only a good basis for future research on the topic, but also support practitioners in their efforts of integrating sophisticated technologies into their organizational contexts. We present two papers that touch on very different aspects of interactions with social robots: One explores the effect of robotic body language in real-world encounters. The second paper focuses on intentionality judgements towards different forms of social robots. With these perspectives, we hope to offer fruitful insights and advance our understanding of social and service robots.

1. Introduction

There are new advances in technology on an almost daily basis. For example, we are currently seeing an explosion in the use of chatbots. These developments in AI and robotics technology are having a huge impact on social robots, as these agents evolve from automated devices to highly autonomous partners. These social robots are ready to enter office and service environments such as hotels, retail and banking, where they can interact with customers. The potential of social robots has always been great, but ground-breaking technological developments and the combination with AI multiply this potential. As a result, their integration is rapidly changing the landscape of business and services.

In contrast to other forms of technology, social robots have what is known as automated social presence, which is why customers tend to treat them as social entities rather than as machines. In addition, social robots are increasingly developing social skills that enable them to recognize human emotions and to behave in human-like ways. The wide range of

benefits that social robots can offer may be the reason why they have attracted so much and growing interest from the research community.

Given the importance of the topic, this minitrack presents studies that extend our understanding of social human-robot interactions by addressing issues that sharpen and guide our view of the future. We aim not only to advance theoretical knowledge on the topic but also to help practitioners and organizations.

The topics of our minitrack delve into theoretical frameworks, research methodologies, and innovative applications for robots in various contexts. The themes explore ethical considerations and the promotion of engagement with robots. Overall, these topics provide an interesting angle of the multidimensional aspects and implications of integrating robots into our social and service environments.

In the first year of this minitrack, we accepted and presented two papers that explore interactions with social robots from different perspectives. The first paper, “Influencing Incidental Human-Robot Encounters: Expressive movement improves pedestrians’ impressions of a quadruped service robot” explores factors that affect incidental encounters with a robot. With a real-world experiment, the authors focus on robot body language—an important element of robot design in social and service environments.

The second paper, “You Did That on Purpose! An Investigation of the Knobe Effect in Human-Robot Interactions” investigates human judgements on decision side effects that are caused by robots. With a focus on people’s attributions of intentionality, the authors are able to demonstrate nuanced findings encompassing differences in the robot’s physical appearance.

We are grateful to be in contact with so many interesting perspectives on interactions with social and service robots and thank the authors for their great work and contributions. We hope to advance knowledge in this field and inspire future research and practice.