Editorial

Cathrine Hasse*, Stine Trentemøller, and Jessica Sorenson

Special Issue on Ethnography in Human-Robot Interaction Research

This special issue builds upon the ideas raised in a workshop[1] on ethnography as an alternative methodology at the 2018 Human-Robot Interaction (HRI) conference in Chicago. We first proposed the workshop after finding that despite increasing interest in the instrumental use of ethnographic methods in technological development processes, ethnography as a research methodology remained more or less absent from the field of human-robot interaction.

The ethnographic research presented at the 2018 HRI workshop provided a close look at real-life experiences of human engagement with robotic technologies, in use and in design processes. Scholars presented how their use of ethnographic methods provided data that, through interdisciplinary collaboration, shed light on human needs and societal concerns surfacing in response to emerging technologies.

Organizing the workshop and putting together this Special Issue has brought us into contact with very interesting roboticists with an understanding of the importance of ethnographic approaches in HRI. Yet, in the work on this special issue we have also found some etymological and methodological differences in our understandings of ethnography.

One thing we heard when we first drafted our proposal was "We already use ethnographic methods in HRI." For some, ethnography is simply *a scientific description of people and cultures*. or descriptive of what "anyone can see".

Another simplification of our work is that it is merely anecdotal, and that a single study is not sufficient to support scientific conclusions.

This may come down to a failure in interdisciplinary translations – how different disciplines develop different methods and have a hard time communicating them. Ethnographic methods are not cookbook recipes for research, but are embedded in a methodology with theoretical grounding.

Ethnographic methods are not easily or effectively extracted and used instrumentally, because they are tied to the theories that frame the researcher's choices in the field, and the ethnographic gaze developed in fieldwork over time.

For anthropologists, and those who utilize an ethnographic methodology to conduct research, ethnography is much, much more than 'just looking'. No anthropologically-based ethnography is ever merely descriptive. We study with people, not of people, on people, outside of people – *with people*. This implies learning how to see the world from a new perspective, learning to share values with the people we study, and relating all of this to the 'outside' world in order to analyze the (social, cultural, and material) complexity of their practices, as interpreted through our own experiences. Through the research process, our analytical objects and graphic descriptions change in accordance with our deeper learning of what matters to people.

Even if ethnography were as simple as anecdotal description, the term 'ethnography' (and the inclusion of its methods and/or methodology) is nearly absent from the HRI literature we examined in a comprehensive review. In this Special Issue, we try to demonstrate both the importance and the validity of ethnographic approaches to research in the HRI research.

*Corresponding Author: Cathrine Hasse: Program for Future Technology, Culture & Learning Department of Education, Aarhus University, Tuborgvej 164, 2400 Copenhagen, Denmark;
E-mail: caha@edu.au.dk
Stine Trentemøller: Program for Future Technology, Culture & Learning Department of Education, Aarhus University, Tuborgvej 164, 2400 Copenhagen, Denmark; E-mail: stinet@edu.au.dk
Jessica Sorenson: Program for Future Technology, Culture & Learning Department of Education, Aarhus University, Tuborgvej 164, 2400 Copenhagen, Denmark; E-mail: jeso@edu.au.dk

1 Cathrine Hasse, Stine Trentemøller, and Jessica Sorenson. 2018. The use of ethnography to identify and address Ethical, Legal, and Societal (ELS) issues: An alternative HRI methodology. In *HRI '18 Companion: 2018 ACM/IEEE International Conference on Human-Robot Interaction Companion, March 5-8, 2018, Chicago, IL, USA*. ACM, New York, NY, USA
https://doi.org/10.1145/3173386.3173560

Nevertheless, we acknowledge that there are different interpretations of ethnography (even within anthropology) and different levels of engagement with ethnographic theories, methods, and approaches, and have included such variation in this Special Issue – showing what each offers to the field of HRI.

Boh Chun makes a strong argument for an ethnographic methodology as particularly suitable for studying robot sociability in social robotics research.

Cathrine Hasse points out the benefits of the multivariation approach to cross-case ethnographic studies, in the context of technological literacy and ethical robotic design.

Leon Bodenhagen et al. combine quantitative methods with large-scale ethnographic observations to identify opportunities for the integration of robotic technologies in hospital workflows.

Jessica Sorenson's study of industrial robotics argues for ethnographic interventions as a bridge between theoretical engineering ethics and pragmatic design activities.

Jamie Wallace's visual ethnography points to the significance of the images created and shared in HRI studies – and the ethical implications of these decisions.

Niels Christian Mossfeldt Nickelsen calls forth a classic discrepancy in ethnography, between perceptions and practice, highlighting the user's key role in realizing a robot's promised performance.

Lasse Blond's comparative ethnographic study of a South Korean Robot rejected in Finland and accepted in Denmark, shows how culture and context matter in both design *and* implementation.

In all of these papers, we can see that ethnography can complement the type of work already being done in HRI, to give more varied and intimate data on the how and why behind the phenomena studied more quantitatively or experimentally in HRI, *and* to bring forward new research foci that emerge only from *studying with people*.

We would like to thank the authors and the reviewers for collaborating with us to produce this exciting Special Issue on ethnography as a methodology for more *human-centric* human-robot interaction research.