Proposal of Special Session

1. Title

Considering Ethics for the Design of AI-Empowered Robots Presenting with Social Identities

2. Aims and Scope

Based on advances in robotics and artificial intelligence (AI) social robots are entering society and becoming more human-like in appearance and social in behavior. For example, robots encountered in social contexts may be equipped with the latest version of LLM models, techniques for facial recognition and emotion detection, and with the ability to make decisions to achieve goals independent of human involvement. Equipped with the latest versions of AI, robots presenting with an identity are interacting with humans and displaying sophisticated social skills which raise important issues of ethics for human-robot interaction (HRI). For example, as humanoid robots become more autonomous in behavior who is responsible for any harms that may occur? Further, how is privacy impacted by robots equipped with LLMs such that their conversation with users is not only realistic but achieving a level of human-robot symbiosis which is similar to that of human-human interactions? In addition, what issues of ethics are involved when AI-empowered robots present with a social identity? How will we treat such robots ethically in social contexts? And as an emerging topic within the HRI community how will issues of ethics be challenged by the use of different techniques of AI (e.g., facial or emotion recognition) guiding the robots behavior?

This special session aims to bring together a set of papers and researchers that will collectively advance the discussion of ethics for robots that are more-and-more guided by AI, among others, allowing them to present with social identities, and that are becoming autonomous in behavior and humanoid in appearance. Given that the topic of the special session is multidisciplinary addressing it will add to the growth of the RO-MAN community by exposing the conference attendees to different perspectives on AI and ethics which involve social robots. And by considering principles of ethics for HRI the special session should inspire policy makers and designers to create human-robot interfaces such that the robots accommodate a diverse group of users. From the above questions we view issues of ethics that are impacted by increasingly smart robots that may raise issues of deception, emotional attachment, and privacy concerns as insufficiently addressed within the RO-MAN community and requiring an interdisciplinary approach as outlined in this proposal for a special session.

Additionally, the topic contributes to the growing discussion within the RO-MAN community on the role of ethics in the design and use of robots by helping to bridge the gap between researchers, practitioners, and policy-makers with an interest in

designing robots that are more human in behavior but that act ethically toward users. For that reason we propose to invite scholars with expertise that intersects HRI, policy, and ethics to present at RO-MAN and support the special session. Additionally, given robots are becoming smarter and moving beyond the intellectual ability of current robots the motivation for the special session is the realization that AI-guided robots will pose significant challenges to normative ethical rules and guidelines for HRI. For that reason we propose the special issue to consider current and future-oriented issues of ethics that will be impacted by continuing advances in AI in the domain of social robots.

Summarizing, the special session will focus on an important and emerging issue for the RO-MAN community to address, that is, issues of ethics for AI-guided robots in an age of increasingly smart robots displaying sophisticated social skills and social identities.

3. Tentative speakers

1. Professor Jess de Pagter, J. Vienna University of Technology: Robotics and AI Governance.
2. Professor Jimin Rhim, Simon Fraser University: Applied Ethics for Robotic Design
3. Professor Gabriele Trovato: Faith, Religion, Ethics, and Human-Robot Interaction
4. Professor Christoph Bartneck, University of Canterbury; Ethics in the Design and Use of Everyday Robots
5. Professor Mark Billinghurst, University of South Australia: Applied Ethics for Robots of Different Age Groups
6. Professor Pompeu Casanovas, University of Barcelona: Legal and Ethical Issues in the Design of Social Robots
7. Professor Frederike Eyssel, Bielefeld University, Trust and Ethics in AI-Guided Human-Robot Interaction
8. Professor Jose Canas, University of Granada, Ethics for AI Entities in Collaboration with Humans
9. Cynthia Breazeal, MIT: Ethics, Equity, and Justice in HRI
10. Professor Kamil Mamak, Jagiellonian University: Robot Design and the Problem of Responsibility Gap

4. Organizers and biographies

Jessica Barfield (corresponding organizer) is an Assistant Professor in the School of Information Science and is affiliated with the Intelligent Robotics Arm Lab at the University of Kentucky-Lexington. She is an active researcher in HRI focusing on the social classification of robots and on issues of ethics for human interaction with social robots. She has participated in the IEEE RO-MAN conference and attended and spoke at IEEE workshops on similar topics to the theme of this special issue and published her work in RO-MAN, the Paladyn Journal of Behavioral Robots, and the International Journal of Human-Computer Interaction. She also serves as a thematic chair for HRI and HCI papers for the International Conference on HCI.

Yueh-Hsuan Weng is an Associate Professor at the Institute for Advanced Study, Kyushu University and Associate Professor (Cross-appointment) at the Frontier Research Institute for Interdisciplinary Sciences, Tohoku University. He has been a

Visiting Associate Professor at the College of Social Sciences, National Taiwan University (2026) and a Visiting Assistant Professor at the Faculty of Law for the University of Hong Kong (2018). He is strongly interested in interdisciplinary studies, especially in issues concerning the interface between Artificial Intelligence and Law, including Robot Law, Social Robotics, and Legal Informatics. He has extensive experience in organizing sessions for conferences.

Ugo Pagallo is a professor at the University of Turin (Italy), Ugo is author of fifteen monographs, a hundred essays in scholarly journals and book chapters, and an active participant in international conferences and research groups, including the high-level expert groups of the European Commission and the World Health Organization, shaping the global conversation on the ethical dimensions of AI and further emerging technologies.

Melanie Sarantou is a Professor of Social Design at Kyushu University in Japan. Her lecturing and research interests span the role of transformation design in arts-based research and design practices. Having edited numerous high-ranking books, her current research explores biotextiles, food plants, and the complexities of social fabrics to understand how to create and assess transformative change.

Jiangen He is an Assistant Professor in the School of Information Sciences at the University of Tennessee, Knoxville. His research sits at the intersection of Human-AI Interaction, Human-Robot Interaction, and Science of Science. He is particularly interested in issues of ethics focusing on biases, transparency, and trust in AI and Robotics, critical thinking in AI-assisted learning, and AI in scientific activities and communication. He earned his Ph.D. from Drexel University and has established a publication record in leading journals and conferences, such as JASIST, IPM, HRI, and IUI.

Kamil Mamak is an Associate Professor, philosopher and a legal scholar at the Jagiellonian University. He is an ERC laureate (Starting Grant). He was a postdoctoral researcher at the RADAR: Robophilosophy, AI Ethics and Datafication research group at the University of Helsinki in 2021-2024. He is also a Member of the Board of the Cracow Institute of Criminal Law. He holds PhDs in law (2018) from Jagiellonian University and philosophy (2020) from the Pontifical University of John Paul II in Cracow. He has authored five book monographs, including “Robotics, AI and Criminal Law: Crimes against Robots,” published by Routledge in 2023 and “Ethics in Human- like Robots” (Routledge) published in 2024.