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COLLOQUIUM DIGITALE  
„DIGITALISIERUNG, MENSCH UND GESELLSCHAFT“

ONLINE SYMPOSIUM

# TO COUNT AS HUMAN

## GENDER-BASED INCLUSION AND EXCLUSION IN DIGITAL TECHNOLOGIES

Digital technologies hold great potential for a better, fairer future and for reducing inequalities. However, not everyone benefits equally from the digital transformation: The technology based on AI in particular seems to harbor the risk of increasing gender-specific inequalities.

In this international virtual symposium on gender bias in technology development, we therefore want to devote ourselves more precisely to the question of why there are gender-specific bias effects in technology research and how these can be recognized and avoided. At the same time, we also want to investigate the question of how we can technologically negotiate non-binary genders. What effects does it have on our society if only what we can map in databases is valid? In the context of the symposium, we will therefore deal with the implications of unfairly distributed data sets using the example of gender, and how these implications change what it means to count as Human.

**REGISTRATION:** We kindly ask you to register at [georg.brunner@oeaw.ac.at](mailto:georg.brunner@oeaw.ac.at)

Please use the following link to join the event: <https://www.oeaw.ac.at/veranstaltungen/live>

Working language of the symposium is English.

# PROGRAM

## WELCOME AND INTRODUCTION

**Astrid Weiss** | TU Wien

**Astrid Weiss** is Assistant Professor at the Human-Computer Interaction Group of TU Wien (Faculty of Informatics) and one of Austria's key figures in the interdisciplinary research area of Human-Robot Interaction (HRI). She is regarded as one of the pioneers in the combination of empirical social research and robotics, both in co-designing the research area and in industry-related research. She served as expert consultant for the FFG project: RoboGen Gender-sensitive interaction with social robots.

**Katta Spiel** | TU Wien

**Katta Spiel** is FWF Hertha Firnberg scholar at the Human-Computer Interaction Group of TU Wien (Faculty of Informatics) and a Lecturer in Gender Studies at the University of Vienna. They research marginalised perspectives on technology to inform critical design and engineering. Their work is situated at the intersection of Computer Science, Design and Critical Theory. Drawing on methods from (Critical) Participatory Design and Action Research, collaborations with neurodivergent and/or nonbinary folks have led to the exploration of novel potentials for designs, methodological contributions to Human-Computer Interaction and innovative technological artefacts.

## IMPULSE LECTURES

**Giulia Perugia** | Eindhoven University of Technology

*Humanoid Robots: The Issue of Gender Representation*

In this presentation, I will describe a recent study focused on gaining a systematic understanding of the process through which anthropomorphic robots are attributed a gender. Besides detailing the core results of the study, I will attempt to explain how the current humanoid designs replicate gender norms in a rather unreflective way and discuss how this creates an issue of gender representation that might be harmful to all of us. I will argue that, since the attribution of gender to robots and the issues it generates are strictly linked to the robot's humanoid form, we might want to start thinking in a more substantial way on what is the usefulness, function and meaning of humanoid robots, and understand whether and how we can design robots that subvert gender norms instead of feeding them.

**Giulia Perugia** received a M.Sc. in Cognitive Science from the University of Siena, and a double degree Ph.D. in Assistive Technologies from Eindhoven University of Technology (TU/e) and the Technical University of Catalonia (UPC). She worked as a postdoctoral researcher at Uppsala Social Robotics lab from 2018 to 2021. Currently, she is an assistant professor at the Human-Technology Interaction group of TU/e. She is interested in studying how people's perceptions and affective states in the interaction with robots can be measured through the interaction itself, how such states and perceptions develop over time, and whether and how the design of and interaction with social robots could reproduce biases and stereotypes existing in society at large.

**Angelika Strohmayer** | Northumbria School of Design

*Counting as human in a design research project*

I will present thoughts on what it means to count as a whole human in a design research project. Too often researchers and participants have to split their whole selves into parts to carry out research. We tend to work with people for one part of their identity, and tend to forget that they are whole humans. This is perhaps most obvious in digital design research that describes participants as 'users'. However, when working in post-disciplinary and deeply explorative projects, making these distinctions in ourselves and in our participants can negatively impact our wellbeing, relationships, and also ultimately the learning we take away from our research projects. With the short presentation, I will make a call for thinking more deeply about what parts of ourselves and of our participants we engage in, how to discuss these throughout the research process, and will try to express the need for a more honest and deep engagement with these throughout the research process.

**Angelika Strohmayer** is a Senior Lecturer and co-director of the Design Feminisms Research Group at Northumbria University's School of Design. Her research is inspired by feminist and justice-oriented theories, which she aims to develop through in-the-world projects that engage people at all stages of the research process to engender change towards more just worlds. She strives to work across boundaries, bringing together disparate groups to engage in participatory endeavours for personal wellbeing, community understanding, and public advocacy.

**Sabine T. Köszegi** | TU Wien

*Three illusions about Artificial Intelligence & Robotics*

In the historic contest between DeepMind's Alpha Go and Lee Sedol in 2016, humans were defeated by machines for the first time, shattering the notion that nothing can come close to human intelligence, creativity and intuition. But hopes that AI & robotics will help overcome human limitations and inadequacies are built on thin ice: (i) on the illusion of objectivity, (ii) on the illusion of gender neutrality, and (iii) on the illusion of equity. When we speak of algorithms, we refer, strictly speaking, to an undefined network of socio-technical arrangements in which human participation remains obscured at every step of the process. In doing so, we mask the fact that cultural, social, and political values – and with them discrimination and bias – are brought in through data and design decisions. Designers determine the appearance, names, voices, and character traits of social robots, perpetuating prejudices, gender stereotypes, and world views. The more homogeneous the group of system designers, the less likely it is that different needs of diverse users will be addressed. According to current studies, however, only about one in eight of the AI experts at tech companies is female. This is where we need to start.

**Sabine Theresia Köszegi** has been Professor of Labor Studies and Organization at the TU since 2009. Her research focuses on the intersection of technology, gender, work and organization. In 2020, she was awarded the Käthe-Leichter Prize for Women's Studies, Gender Studies and Equality in the World of Work. Since 2017, she has been involved in policy advice as a member of the European Commission's High-Level Expert Group on Artificial Intelligence and as Chair of the Austrian Council on Robotics and AI. She currently coordinates the PhD program Trust Robots and the transdisciplinary #Connecting Minds research project Caring Robots at TU Wien.

**Oliver Haimson** | University of Michigan School of Information

*Trans Technologies*

My current research project examines the world of trans technologies: apps, games, health resources, art, and other types of technology designed to help address some of the challenges transgender people face in the world, as well as to create spaces for trans communities and individuals. In this study, my research team and I conducted in-depth interviews with more than 50 creators of existing trans technologies to understand the current landscape of trans technology, highlight areas for future innovation, and build theory via community input around what it means for a technology to be a trans technology. This work illuminates the world of trans technologies and the people who create them, the design processes that brought these technologies to life, and the ways trans people often rely on community and their own technological skills to meet their most basic needs and challenges.

**Oliver Haimson** is an Assistant Professor at University of Michigan School of Information and a recipient of a National Science Foundation CAREER award. He conducts social computing research focused on envisioning and designing trans technologies, social media content moderation and marginalized populations, and changing identities on social media during life transitions. Much of his research has focused on transgender identities and experiences online and with social technologies, and his research goal is to impact technological inclusion of marginalized users. His research has been published in conferences and journals including CHI, CSCW, TOCHI, New Media and Society, and Social Media + Society.

## ROUND TABLE DISCUSSION

**Moderated by:**

**Astrid Weiss and Katta Spiel**

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