

Hannah Pelikan

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EDUCATION

Ph.D. Candidate in Language and Culture/Interaction Analysis 11/2018-04/2023

Linköping University, Linköping, Sweden

Thesis Title: Coordinating Robots and Humans: Sound and Embodiment in Human-Robot Interaction

Supervisors: Prof. Leelo Keevallik, Prof. Mathias Broth

M.Sc. in Interaction Technology 2016-2018

University of Twente, Enschede, The Netherlands

Thesis Title: "What's going on there?" Negotiating common ground in robotic vs. open surgery. A comparison of surgeon-initiated requests for action in open and robotic surgery

Thesis grade: very good (9/10), Final average grade: cum laude (8.92/10)

Subject areas: Conversational Agents, Brain Computer Interfacing, Philosophy of Technology, Computer Ethics, Human Computer Interaction, Embodied Interaction, Multisensory Design, Image Processing and Computer Vision, Information Retrieval, Trends in Human-Robot Interaction Research

B.Sc. in Cognitive Science 2012-2015

Osnabrück University, Osnabrück, Germany

Thesis Title: How humans adapt to a robot recipient – An interaction analysis perspective on human–robot interaction. Published at CHI 2016.

Thesis grade: excellent (1.0/4.0), Final grade: excellent (1.5/4.0)

Examination areas: Cognitive Psychology, Computer Science, Neuroinformatics, Neuroscience, Mathematics

Exchange Student in Cognitive Science 2014-2015

Linköping University, Linköping Sweden

RESEARCH EXPERIENCE

Visiting Researcher 01-06/2022

Robots in Groups Lab, Cornell University, Ithaca, NY, USA

Research on how EMCA and design can be combined in prototyping process of a virtual AI teammate

Visiting Researcher 08-12/2017

Robots in Groups Lab, Cornell University, Ithaca, NY, USA

Research on how surgical robots affect teamwork. Results published at CSCW (Pelikan et al., 2018; Cheatle et al., 2019)

Research Assistant 01/2016-10/2017

University of Duisburg-Essen & Bielefeld University

Development of a toolbox for visualization of Kinect data based on annotations in ELAN

Research Intern 10-12/2015

University of Duisburg Essen

Analysis of video data recorded on a NAO robot in a museum setting. Facilitation of a breaching experiment with a museum guide

Intern

08-10/2013

*Klinik für Neuropsychologie am Klinikum Bogenhausen,
Research Group Clinical Neuropsychology (EKN)*

Assistance in preparation of experiments on premotor neglect, visits to therapy sessions

TEACHING

Linköping University, Sweden

Tutor *Perspektiv på informationsteknologi (Perspectives on IT)* autumn 2020, 2021
(Computer & Information Science)

Guest lecturer *Robots in Healthcare* (Biomedical Engineering) autumn 2019, 2020, 2021

Tutor *Applied Cognitive Science* (Computer & Information Science) spring 2021

Seminar teacher *Ethics of Artificial Intelligence* (Culture & Society) autumn 2020

University of Duisburg-Essen, Germany

Examiner & Teacher *Telepräsenz Seminar (Seminar on Telepresence)* summer 2021
(Communication Science, Communication-Media-Technology Module)

University of Twente, The Netherlands

Tutor *Communication Technology for Global Work* summer 2018
(Electrical Engineering, Mathematics & Computer Science)

Osnabrück University, Germany

Tutor *Introduction to Philosophy of Mind* (Cognitive Science) summer 2014

Tutor *Statistics and Data Analysis I* (Psychology) autumn 2013

SERVICE

Editing

ACM Transactions on Human-Robot Interaction, Special Issue on Sound in HRI 2022

Reviewing

ACM CHI, Human Factors in Computing Systems 2016, 2021, 2022

ACM THRI Journal Transactions on Human-Robot Interaction 2021

ACM/IEEE HRI: Human-Robot Interaction 2021

ACM CSCW: Computer-Supported Cooperative Work and Social Computing 2019, 2020

NordiCHI: Human-Computer Interaction 2020

CUI: Conversational User Interfaces 2020

Interaction Studies Journal 2019

Workshop Organization

Sound in Human-Robot Interaction, ca 100 participants HRI 2021

Enriching HRI Research with Qualitative Methods, ca 100 participants ICSR 2020

Seminar and Network Activities

EMCA&AI network: co-founder since summer 2020

AI in Interaction online data sessions: co-founder since summer 2020

AI in Society seminar, Linköping University: host since 09/2020

Conference Organization

CSCW Steering Committee – student member since 12/2021

Student volunteer – Virtual Program Committee meeting ACM CSCW 2019

Student volunteer – Welcome desk & session assistance ACM CSCW 2018

Boards and Institutional Representation

PhD student representant: WASP-HS PhD interviews, Linköping University 10/2021
Vice-President: IKOS PhD council, Linköping University 01-12/2021
Presidium member: student association LiUPhD, Linköping University since 07/2020
Alumni representant re-accreditation of master program Interaction Technology
University of Twente, The Netherlands 09/2019

AWARDS AND GRANTS

Awards

Graduation award, University of Twente: 1000€ 2019
Faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS)
Best Paper Award, CSCW Conference 2019
with Amy Cheatle, Malte Jung, and Steven Jackson

Scholarships

Scholarship for outstanding students, Evangelisches Studienwerk Villigst 2012-2018
monthly allowance plus support of studies abroad

Travel grants

Vinnova staff exchange for applied AI-research, 330 000 SEK 2021
Helge Ax:son Johnsons Stiftelse, 7000 SEK 2020
Erasmus+ staff training (Loughborough University, UK) 2019
Erasmus+ students (Linköping University, Sweden) 2014-2015

INVITED TALKS

Cornell University, USA: Introduction to interaction analysis. INFO 4410 Re-Designing Robots. 13 September 2021

CUI 2021 Conference on Conversational User Interfaces: Featured Talk. Why that Nao? How humans adapt to a conventional humanoid robot in taking turns-at-talk. 28 July 2021.

KTH, Stockholm, Sweden: AI and the Posthumanities. The Posthumanities Hub. 22 April 2021.

University of Chicago, USA: How Humans Make Sense of a Home Robot's Emotion Displays. CMSC 33281 Topics in HRI. 12 October 2020.

EPFL, Lausanne, Switzerland: How humans adapt to make robots work. 22 October 2019.

Mixed Reality Laboratory, Nottingham, UK: Are you sad Cozmo? Participants' orientation to robot emotional displays. 27 September 2019.

Linköping University, Sweden: Surgical Robots and Teamwork, COIN seminar (Computer and Information Science Department). 28 February 2019.

OUTREACH ACTIVITIES

AI in Society. Public lecture in Strimman series. Linköping University, Sweden. 23 November 2021.

Låna en forskare. Forskarfredag. 3 online school visits. Malmö, Sweden. 20-21 September 2021

AI and Inclusion – for whom and by whom are AI applications developed? Online Correspondences EU Digital Futures. Goethe-Institute and Polis180. May-June 2021

Human-Robot Interaction Researcher. Skype a Scientist. Warsaw, Poland. 22 March 2021

Human-robot interaction. Science Pop Up Expo. Linköping Science Park. Linköping, Sweden. 9 December 2020

Robots in everyday interaction. Science Pop Up Expo. Linköping Science Park. Linköping, Sweden. 13 November 2019.

Låna en forskare. Forskarfredag. School visit. Linköping, Sweden. 11 October 2019.

Die Roboter kommen! Um Himmels Willen oder Gott sei Dank? Talk at KDA München, Germany. July 2018.

DATA SESSIONS

Coordinating movement with an autonomous bus. Samtals- och interaktionsseminariet, Linköping University, Linköping, Sweden (online). 10 September 2020.

Coordinating with a self-driving bus. Non-lexical sounds in bus-pedestrian and bus-cyclist interaction. MOBSIN Workshop (online). 8 May 2020.

Coordinating with an embodied AI at work: Non-lexical robot sounds in family homes. Samtals- och interaktionsseminariet, Linköping University, Linköping, Sweden. 6 February 2020.

Coordinating with a robot: Non-lexical robot sounds in family homes. Talk, Interaction and Multimodality Data Session Series, Stockholm University, Stockholm, Sweden. 31 January 2020.

Encounters with a social robot. MOBSIN 9 Workshop, Leuven, Belgien. 16 May 2019.

Interacting with a conventional humanoid robot. IEMCA Conference, Kolding, Denmark. 6 August 2015.

PUBLICATIONS

JOURNAL PUBLICATIONS

Amy Cheatle, **Hannah R. M. Pelikan**, Malte F. Jung, and Steven J. Jackson. 2019. Sensing (Co)operations: Articulation and Compensation in the Robotic Operating Room. *Proceedings of the ACM on Human-Computer Interaction 2*, CSCW, Article 225 (November 2019), 26 pages. <https://doi.org/10.1145/3359327> <<Best Paper Award>>

Hannah R. M. Pelikan, Amy Cheatle, Malte F. Jung, and Steven J. Jackson. 2018. Operating at a Distance – How a Teleoperated Surgical Robot Reconfigures Teamwork in the Operating Room. *Proceedings of the ACM on Human-Computer Interaction 2*, CSCW, Article 138 (November 2018), 28 pages. <https://doi.org/10.1145/3274407>

CONFERENCE PUBLICATIONS

Hannah R. M. Pelikan. 2021. Why Autonomous Driving Is So Hard: The Social Dimension of Traffic. In *Companion of the 2021 ACM/IEEE International Conference on Human-Robot Interaction (HRI '21 Companion)*, March 8–11, 2021, Boulder, CO, USA. ACM, New York, NY, USA, 5 pages. <https://doi.org/10.1145/3434074.3447133>

Hannah R. M. Pelikan, Mathias Broth, and Leelo Keevallik. 2020. 'Are You Sad, Cozmo?' How Humans Make Sense of a Home Robot's Emotion Displays. In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI '20)*, March 23–26, 2020, Cambridge, United Kingdom. ACM, New York, NY, USA, 10 pages. <https://doi.org/10.1145/3319502.3374814>
acceptance rate: 23.6%

Dimosthenis Kontogiorgos and **Hannah R. M. Pelikan.** 2020. Towards Adaptive and Least-Collaborative-Effort Social Robots. In *Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI '20 Companion)*, March 23–26, 2020, Cambridge, United Kingdom. ACM, New York, NY, USA, 3 pages. <https://doi.org/10.1145/3371382.3378249>

Hannah R. M. Pelikan and Mathias Broth. 2016. Why That Nao?: How Humans Adapt to a Conventional Humanoid Robot in Taking Turns-at-Talk. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16)*. ACM, New York, NY, USA, 4921-4932. <https://doi.org/10.1145/2858036.2858478>
acceptance rate: 23%

BOOK CHAPTER

Hannah Pelikan, Leelo Keevallik and Mathias Broth. 2020. Människa–robot-interaktion. In M. Broth & L. Keevallik (Eds.) *Multimodal Interaktionsanalys* (pp. 395-415). Studentlitteratur.

WORKSHOP CONTRIBUTIONS

Hannah Pelikan, Sofia Thunberg and Ericka Johnson. Gender Studies and Robotics – A Dialogue. Presented at the Workshop *Gendering Robots: Ongoing (Re)configurations of Gender in Robotics* held in conjunction with the 30th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN'21).

Hannah Pelikan. 2021. Conversation Analysis and Research Through Design — A Fruitful Interaction? Paper presented at the Workshop *Research Through Design Approaches in Human-Robot Interaction* held in conjunction with the 16th ACM/IEEE International Conference on Human-Robot Interaction (HRI '21).

Hannah R. M. Pelikan. 2020. Intermediate-Level Knowledge: A Conversation Analysis Perspective. Paper presented at the first international workshop on Designery HRI Knowledge held in conjunction with the 29th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2020).

Hannah R. M. Pelikan, Mathias Broth, and Leelo Keevallik. 2020. Designing for Incidental Encounters with Autonomous Buses: An Ethnomethodology and Conversation Analysis Approach. Paper accepted for the Workshop The Forgotten in HRI: Incidental Encounters with Robots in Public Spaces at the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI '20).

Hannah R. M. Pelikan. 2019. "A Stubborn Child" – How Robot Sounds are Oriented to in Everyday Situated Interaction at Home. Mensch und Computer 2019 – Workshopband. Bonn: Gesellschaft für Informatik e.V.. DOI: [10.18420/muc2019-ws-659](https://doi.org/10.18420/muc2019-ws-659)

Hannah R. M. Pelikan. 2019. Tackling Interactional Challenges in Social Robots: A Multimodal Conversation Analytic Approach. Paper presented at ACM CHI Conference on Human Factors in Computing Systems, workshop on The Challenges of Working on Social Robots that Collaborate with People, Glasgow, UK.

Federico Fabiano, **Hannah R. M. Pelikan**, Jelle Pingen, Judith Zissoldt, Alejandro Catala and Mariët Theune. 2017. Designing a Co-Creative Dancing Robotic Tablet. Paper presented at 6th International Workshop on Computational Creativity, Concept Invention, and General Intelligence, Madrid, Spain.

POSTER

Hannah R. M. Pelikan. 2020. Coordinating Actions with a Mobile Embodied AI. Presented at the European Conference on Conversation Analysis 2020 (ECCA2020) in Nijmegen, The Netherlands.