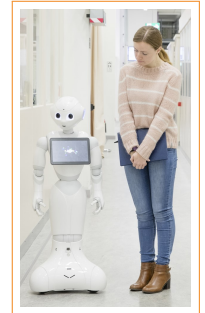


# Katie Winkle

## Curriculum Vitae

Uppsala Social Robotics Laboratory  
Department of Information Technology  
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**Mission:** *Delivering ethical and effective Human-Robot Interaction (HRI) for the real-world.*

**Research Interests:** Human Robot Interaction; Artificial Intelligence; Robots in Society; Robot Ethics

### Employment

- Feb 2022 - **Assistant Professor (Biträdande Universitetslektor) in Social Robotics**,  
Division of Vi3; Human-Machine Interaction  
Department of Information Technology  
Uppsala Universitet, Uppsala, Sweden.
- 2020-2022 **Digital Futures Postdoctoral Research Fellow**, *Individual Fellowship (100% Research)*,  
Social Robotics Group  
Division of Robotics, Perception and Learning  
KTH Royal Institute of Technology, Stockholm, Sweden.
- 2019-2020 **Research Associate**, *ROBOTIPS Project*,  
Bristol Robotics Laboratory  
University Of the West of England, Bristol, UK.

### Education

- Sep 2020 **PhD in Robotics**, *Bristol Robotics Laboratory*,  
FARSCOPE Centre for Doctoral Training  
University of Bristol and University of the West of England, Bristol UK  
Thesis Title: *Expert-Informed Design and Automation of Persuasive, Socially Assistive Robots.*
- Jun 2015 **MEng in Mechanical Engineering**, *University of Bristol*, Bristol, UK,  
awarded with First Class Honours.

### Funding

- 2022-2026 **Co-Designing a Social Robot Facilitator to Boost Community Engagement with Type 2 Diabetes Prevention**, *Principal Investigator*, with Meena Daivadanam and Louise von Essen  
Funded by the Uppsala Diabetes Center: SEK 1,600,000.
- 2020-2022 **Digital Futures Postdoctoral Fellowship**, *Principal Investigator*,  
Funded by the Digital Futures Research Centre at KTH: SEK 2,000,000.

### PhD Student Supervision

I am main supervisor for the following student(s):

- from 08/2022 **Lux Miranda**, PhD in Computer Science with Specialisation in Human-Computer Interaction,  
Uppsala University.
- from 09/2022 **Alessio Galatolo**, PhD in Computer Science with Specialisation in Human-Computer Interaction,  
Uppsala University.

I am co-supervisor for the following student(s):

from 04/2022 **Laetitia Tanqueray**, PhD in Technology and Society, Lunds Tekniska Högskola, *Main Supervisor: Stefan Larsson.*

I have also provided supervision on collaborative research visits by the following students:

Autumn 22 **Terran Mott**, PhD Candidate, Colorado School of Mines, *Main Supervisor: Tom Williams.*

Spring 22 **Laura Moradbakhti**, PhD in Psychology and Human-Machine Interaction, Linz Institute of Technology, *Main Supervisor: Martina Mara.*

Summer 21 **Giulia Belgiovine**, PhD in Robotics Brain and Cognitive Sciences, Istituto Italiano di Tecnologia, *Main Supervisor: Alessandra Sciutti.*

## MSc Student Supervision

Recent projects supervised at the second cycle level:

- 2021 Alessio Galatolo '*Exploring and Incorporating Personality, Social Identity and (In)Congruent Emotions into Robots*'  
Degree Project in Computer Science and Engineering, 30 credits, KTH
- 2020 Alessio Galatolo '*Robot Gender and Persuasiveness in Tackling Gender Stereotypes*'  
Research Project in Robotics, Perception and Learning, 15 credits, KTH
- 2020 Paul Gorgis '*Understanding Gaze Behaviour and Gender in Human Robot Interaction*'  
Degree Project in Computer Science and Engineering, 30 credits, KTH
- 2020 Ravi Bir '*Implementing Machine Learning Techniques to Improve the Performance of Socially Assistive Robots*'  
Degree Project in Computer Science and Engineering, 30 credits, KTH
- 2019 Shiming Zhang '*Interactive Machine Learning for Social Robots in Public Spaces*'  
MSc Robotics Dissertation, 60 credits (30 ECTS equivalent), Bristol Robotics Laboratory
- 2019 Ranvir Bhogal '*Defining a Social Robot in a Public Environment*'  
MSc Robotics Dissertation, 60 credits (30 ECTS equivalent), Bristol Robotics Laboratory

## Teaching

### Experience in Full Course Delivery:

- 2021-2022 DD2413 Social Robotics *KTH Royal Institute of Technology*  
(7.5 credits; second cycle)  
Role: Lecturer, Course Responsible  
Activities: Lectures, laboratory sessions and tutorials  
Extent: Responsible for 50% of the course lectures (covering technical and ethical aspects of social human robot interaction), group project supervision, development of teaching materials and course assessment  
Topics: design methods, perception, technical implementation of robot architectures, social (machine) learning, ethics  
Teaching Language: English  
Number of students expected: approx. 15-30

- 2017-2018 COMSM4111 Robotic Systems *University of Bristol*  
 (20 credits (10 ECTS equivalent); first cycle)  
 Role: Lecturer, Course Responsible and Examiner  
 Activities: lectures and laboratory sessions  
 Extent: As a lecturer delivering approx. 12 lectures and supervising 18 hours of laboratory sessions over the 12 week academic term, as course responsible recruiting, training and co-ordinating the course TA's, communicating with students, developing the course assessment, grading and analysing student evaluations  
 Topics: stochastic filtering, uncertainty modelling, SLAM, mobile robotics, social robotics  
 Teaching Language: English  
 Number of students: approx. 100
- 2017-2018 COMSM0012 Robotic Systems PG *University of Bristol*  
 (20 credits (10 ECTS equivalent); second cycle)  
 Role: Lecturer, Course Responsible and Examiner  
 Activities: lectures and laboratory sessions  
 Extent: As a lecturer delivering approx. 12 lectures and supervising approx. 18 hours of laboratory sessions over the 12 week academic term, as course responsible recruiting, training and co-ordinating the course TA's, communicating with students, developing the course assessment, grading and analysing student evaluations  
 Topics: (as COMSM4111)  
 Teaching Language: English  
 Number of students: approx. 100

**Additional Teaching Experience, Current and Previous:**

- Spring 2021 DT2140 Multimodal Interaction and Interfaces *KTH Royal Institute of Technology*  
 (7.5 credits; second cycle)  
 Role: Project Supervisor  
 Extent: I supervised a student-led group research project which resulted in a poster publication at the Persuasive Technology Conference 2021.
- Spring 2021 DD2380 Artificial Intelligence *KTH Royal Institute of Technology*  
 (6 credits; second cycle)  
 Role: Lecturer  
 Extent: Guest lecture on AI ethics  
 Topics: AI ethics, human-in-the-loop robot development, ethical standards  
 Teaching Language: English  
 Number of students: 116
- Spring 2021 DD3316 Robotics Reading Group *KTH Royal Institute of Technology*  
 (6 credits; third cycle)  
 Role: Student Mentor  
 Extent: Participation in a paper reviewing session with two PhD students, providing an exemplar review and giving feedback on their reviews.
- Spring 2021 DH2632 Human-Computer Interaction Research Seminars *KTH Royal Institute of Technology*  
 (3 credits; second cycle)  
 Role: Lecturer  
 Extent: Guest lecture on human robot interaction design  
 Topics: human-robot interaction, social shaping of technology  
 Teaching Language: English  
 Number of students: approx. 20

- 2017-2018 AENGM0029 Robotics Research Preparation *University of Bristol*  
(15 credits (7.5 ECTS equivalent); second cycle)  
Role: Teaching Assistant, Examiner  
Extent: Leading weekly reading group sessions and assessing student presentations (providing both formative and summative assessment) over the 12 week term  
Number of students: approx. 20
- 2016-2017 EMATM0029 Bio-Inspired Artificial Intelligence *University of Bristol*  
(10 credits (5 ECTS equivalent); second cycle)  
Role: Teaching Assistant  
Extent: Providing online forum assistance with exercise sheets; expert solution preparation over the 12 week term  
Topics: artificial evolution, neural networks, swarm intelligence, and bio-inspired robotics  
Number of students: approx. 80
- 2016-2017 EMAT10007 Introduction to Computer Programming *University of Bristol*  
(10 credits (5 ECTS equivalent); first cycle)  
Role: Teaching Assistant, Examiner  
Extent: Supporting weekly 3 hour laboratory sessions over the 12 week term; standardisation of project marking scheme and assessment of final student projects  
Topics: SCRATCH, python, programming  
Number of students: approx. 50
- 2015-2017 COMSM4111 Robotic Systems *University of Bristol*  
(20 credits (10 ECTS equivalent); first cycle)  
Role: Teaching Assistant  
Activities: lectures and laboratory sessions  
Extent: Supporting 12 weeks of weekly 3 hour laboratory sessions; assessment of final student projects  
Topics: stochastic filtering, uncertainty modelling, SLAM, mobile robotics, personal robotics  
Number of students: approx. 100
- 2015-2017 COMSM0012 Robotic Systems PG *University of Bristol*  
(20 credits (10 ECTS equivalent); second cycle)  
Role: Teaching Assistant  
Activities: lectures and laboratory sessions  
Extent: Supporting weekly 3 hour laboratory sessions over the 12 week term; assessment of final student projects  
Teaching Language: English  
Topics: (as COMSM4111)  
Number of students: approx. 100

## Distinctions and Awards

- 2021 Top 3 Finalist: Best UK PhD in Robotics Award  
Awarded 3rd Place in Queen Mary University of London National Competition
- 2020 Best Paper Award  
International Conference on Robot Ethics and Standards
- 2020 PhD Awarded Unconditionally and with Nomination for Departmental Award  
*My PhD examiners Prof. Tony Belpaeme and Associate Prof. Iolanda Leite recommended I be awarded my PhD unconditionally, which is rare in the UK system where the typical outcome is 'minor corrections', and recommended I receive additional distinction from my department.*
- 2019 HRI Pioneer  
*Selected to participate in Human-Robot Interaction (HRI) Pioneers, a highly selective workshop to foster creativity, communication and collaboration between young researchers.*

- 2018 Best Paper Award: Theory and Methods  
ACM/IEEE International Conference on Human-Robot Interaction, Chicago, USA
- 2018 M H Joseph Prize for Academic Excellence  
British Federation of Women Graduates
- 2016 Undergraduate Visionary Award  
Institution of Mechanical Engineers

### Selected Invited Talks

- Jun 2022 Keynote Speaker: KTH RPL International Summer School, *Bro, Sweden*
- May 2022 Plenary Speaker: International Symposium on Use of Humanoid Robot Technology for Therapy, *Greifswald, Germany*
- Apr 2022 Children and AI Workshop, Cambridge University, *Digital Event*
- Feb 2022 Responsible AI Seminar, Umeå University, *Digital Event*
- Jun 2021 HEART Webinar, Softbank Robotics, *Digital Event*
- Apr 2021 Keynote Speaker: Social BRIDGES e-conference, *Digital Event*
- Dec 2020 Digital Futures Seminar (KTH Royal Institute of Technology), *Digital Event*
- Jun 2020 Heriot-Watt University, *Digital Event*
- Jan 2020 Colorado School of Mines, *Colorado, USA*
- Apr 2018 Association of Chartered Physiotherapists Interested in Neurology AGM, *Bristol, UK*

### Academic Service

#### **Journal Editorial Roles**

- 2022 Guest Editor, International Journal of Social Robotics  
*Special Issue on Embodied Agents For Wellbeing*
- 2022 Guest Editor, International Journal of Social Robotics  
*Special Issue on Gender in Robotics*

#### **Chair Roles in International Conferences**

- March 2023 Local Chair  
*International Conference on Human-Robot Interaction*
- Nov 2020 Workshop Chair  
*International Conference on Social Robotics*

#### **International Program Committee Service**

- Sep 2021 Senior Program Committee/Area Chair  
*International Conference on Affective Computing & Intelligent Interaction (ACII)*

#### **Additional Organisation of International Academic Events**

- Oct 2022 Workshop Organiser  
*'Affective Robotics for Well-being' held jointly with the International Conference on Affective Computing and Intelligent Interaction (ACII) 2022*
- Aug 21, 22 Workshop Organiser  
*'GENDERING ROBOTS (GENR): Ongoing (Re)configurations of Gender in Robotics' held jointly with the IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2021 and 2022*
- Mar 2021 Panel Co-Chair  
*'Social Robotics and Trustworthy Human-Robot Interaction for Healthcare' at the WASP-HS AI and Healthcare Community Meeting hosted by Umeå University.*
- Nov 2020 Workshop Chair  
*International Conference on Social Robotics*

- Nov 2020 Workshop Organiser  
*'Future Digileaders Career Workshop' hosted by KTH Royal Institute of Technology.*
- Nov 2020 Workshop Organiser  
*'Enriching HRI Research with Qualitative Methods' workshop held jointly with the International Conference on Social Robotics*
- Mar 2020 General Chair  
*HRI Pioneers Workshop held jointly with the International Conference on Human Robot Interaction*
- Mar 19, 20 Workshop Organiser  
*'What Could go Wrong?' workshop held jointly with the International Conference on Human Robot Interaction*

### **Reviewer for Journal Articles**

- Transactions on Human-Robot Interaction 2018 - 2021
- International Journal of Social Robotics 2019 - 2022
- Transactions on Computer-Human Interaction 2021 - 2022
- Frontiers in Robotics and AI 2021 - 2022
- International Journal of Child-Computer Interaction 2021
- MDPI Multimodal Technologies and Interaction 2021

### **Reviewer for Conference Proceedings**

- ACM/IEEE International Conference on Human-Robot Interaction (HRI) 2018 - 2022
- IEEE International Conference on Robot Human Interactive Communication (RO-MAN) 2017, 2018, 2021, 2022
- Persuasive Technology Conference 2022
- ACM In-Cooperation Conversational User Interfaces (CUI) 2021
- ACM Designing Interactive Systems (DIS) 2021
- Robotics: Science and Systems (RSS) 2020
- ACM International Conference on Multimodal Interaction (ICMI) 2018

## Selected Media, Exhibition and Public Engagement Highlights

- 2021+ Research on "Feminist Robots" in International Media  
*My work on feminist social robotics has been featured in Swedish popular science magazine [Forskning och Framsteg](#), the German IT news site [heise online](#) and the US based [Slate news](#).*
- Nov 2019 PhD Robot Fitness Coach in International Media  
*The robot fitness coach I developed as a culmination of my PhD studies was filmed for on the BBC's weekly, national technology show 'BBC Click' and was also featured on televised news (BBC, ITV, Sky News), and in both print and online news (see e.g. [Irish Independent](#)).*
- Apr 2019 Regent Street Cinema, London  
*Invited panelist for discussion on robots and society following a screening of Blade Runner.*
- Feb 2018 EPSRC Science for a Successful Nation Showcase  
*The therapy coach Pepper robot demonstrator I developed during my PhD was chosen as exemplar research supporting science for a healthy nation. I exhibited the robot and represented the Bristol Robotics Laboratory at the 1 day event held at the Royal Society, London.  
[https://www.youtube.com/watch?v=OcMLa\\_v02iY](https://www.youtube.com/watch?v=OcMLa_v02iY)*
- May 2017 Robot Takeover, London Science Museum  
*The therapy coach Pepper robot demonstrator I developed during my PhD was exhibited at the London Science Museum as part of a robotics edition of their popular Lates evening series.*
- April 2017 Designed, organised and led programming day with house in-built robots for outreach, *Abbeywood Community School, Bristol*

Nov 2017 "How I got totally hooked on robotics"

*Profile in The Guardian on behalf of the IMechE, online and in print: <https://www.theguardian.com/careers/2017/nov/28/how-i-got-totally-hooked-on-robotics>*

## Publications

### **Doctoral Thesis**

K. Winkle, 2020 "Expert-Informed Design and Automation of Persuasive, Socially Assistive Robots" (Doctoral dissertation, University of Bristol). *PhD by monographs: 63,275 words; 272 pages*

### **International Journal Articles**

[J3] **K. Winkle**, E. Senft, S. Lemaignan "LEADOR: A Method for End-To-End Participatory Design of Autonomous Social Robots" *Frontiers in Robotics and AI* (2021)

[J2] **K. Winkle**, P. Caleb-Solly, A. Turton and P. Bremner, "Mutual Shaping in the Design of Socially Assistive Robots: A Case Study on Social Robots for Therapy." *International Journal of Social Robotics* (2019)

[J1] H. Webb, M. Dumitru, A. van Maris, **K. Winkle**, M. Jirotko, A. Winfield "Role-play as Responsible Robotics: The Virtual Witness Testimony Roleplay Interview for Investigating Hazardous Human-Robot Interactions" *Frontiers in Robotics and AI* (2021)

### **Books and Book Chapters**

[B1] A. Winfield, **K. Winkle**, H. Webb, U. Lyngs, M. Jirotko, C. Macrae "Robot Accident Investigation: A Case Study in Responsible Robotics" (2021) A. Cavalcanti, B. Dongol, R. Hierons, J. Timmis, J. Woodcock (Eds.) *Software Engineering for Robotics*, Springer

### **Contributions to Conferences**

*Peer Reviewed, Full Paper Contributions to Conferences:*

[C11] S. Gillet, **K. Winkle**, G. Belgiovine and I. Leite, "Ice-Breakers, Turn-Takers and Fun-Makers: Exploring Robots for Groups with Teenagers" in 31st IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Naples, Italy 2022

[C10] **K. Winkle**, R. Jackson, G. Melsión, D. Brščić, I. Leite and T. Williams "Norm-Breaking Responses to Sexist Abuse: A Cross-Cultural Human Robot Interaction Study" *accepted for publication in Proceedings of the 2022 ACM/IEEE International Conference on Human-Robot Interaction*, Sapporo, Japan **Acceptance rate: 25%**

[C9] **K. Winkle**, G. Melsión, D. McMillan and I. Leite, "Boosting Robot Credibility and Challenging Gender Norms in Responding to Abusive Behaviour: A Case for Feminist Robots" in Companion Proceedings (alt.HRI) of the 2021 ACM/IEEE International Conference on Human-Robot Interaction, Colorado, USA **Acceptance rate: 22%**

[C8] **K. Winkle**, P. Caleb-Solly, U. Leonards, A. Turton and P. Bremner, "Assessing and Addressing Ethical Risk from Anthropomorphism and Deception in Socially Assistive Robots" in Proceedings of the 2021 ACM/IEEE International Conference on Human-Robot Interaction, Colorado, US. **Acceptance rate: 23%**

[C7] **K. Winkle**, S. Lemaignan, P. Caleb-Solly, U. Leonards, A. Turton and P. Bremner, "In-Situ Learning from a Domain Expert for Real World Socially Assistive Robot Deployment" in Proceedings of the 2020 Robotics: Science and Systems Conference **Acceptance rate: 32%**

[C6] **K. Winkle**, A. van Maris, "Social Influence and Deception in Socially Assistive Robotics" in Proceedings of the 2019 International Conference on Robot Ethics and Standards, London, UK

[C5] **K. Winkle**, S. Lemaignan, P. Caleb-Solly, U. Leonards, A. Turton and P. Bremner, "Effective Persuasion Strategies for Socially Assistive Robots" in Proceedings of the 2019 ACM/IEEE International Conference on Human-Robot Interaction, Daegu, South Korea. **Acceptance rate: 24%**

[C4] **K. Winkle**, P. Caleb-Solly, A. Turton and P. Bremner, "Social Robots for Engagement in Rehabilitative

Therapies: Design Implications from a Study with Therapists" in Proceedings of the 2018 ACM/IEEE International Conference on Human-Robot Interaction, Chicago, USA **Acceptance rate: 24%; Awarded Best Paper**

[C3] **K. Winkle** and P. Bremner, "Investigating the real world impact of emotion portrayal through robot voice and motion" in 26th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Lisbon, Portugal 2017

[C2] A. Winfield and **K. Winkle**, "RoboTed: a case study in Ethical Risk Assessment" in Proceedings of the 2020 International Conference on Robot Ethics and Standards **Awarded Best Paper**

[C1] H. Webb, M. Jirotko, A. Winfield and **K. Winkle**, "Human-robot relationships and the development of responsible social robots" in Proceedings of the Halfway to the Future Symposium 2019, Nottingham, UK 2019

*Peer Reviewed Conference Poster and Workshop Publications:*

[W11] **K. Winkle**, E. Lagerstedt, I. Torre and A. Offenwanger, "A Systematic Review of Participant Gender in 15 Years of HRI User Studies" at Diversity, Equity, and Inclusion (DEI) in HRI co-located with the 2022 ACM/IEEE International Conference on Human-Robot Interaction

[W10] **K. Winkle**, R.B. Jackson, A. Bejarano and T. Williams, "On the flexibility of robot social identity performance: benefits, ethical risks and open research questions for HRI" at Robo-Identity co-located with the 2021 ACM/IEEE International Conference on Human-Robot Interaction

[W9] **K. Winkle**, G. Melsión, M. Arnelid, D. McMillan, M. Balaam, K. Harrison, E. Johnson and I. Leite "Feminism x Social Robotics" for GENDERING ROBOTS: Ongoing (Re)configurations of Gender in Robotics Workshop at the 2021 IEEE International Conference on Robot and Human Interactive Communication

[W8] **K. Winkle**, R. Jackson, A. Bejarano, T. Williams, "On the Flexibility of Robot Social Identity Performance: Benefits, Ethical Risks and Open Research Questions for HRI" for the 'Robo-Identity: Artificial identity and Multi-Embodiment' Workshop at the 2021 ACM/IEEE International Conference on Human-Robot Interaction

[W7] R. Jackson, **K. Winkle**, A. Bejarano, T. Williams, "Design, Performance, and Perception of Robot Identity" for the 'Robo-Identity: Artificial identity and Multi-Embodiment' Workshop at the 2021 ACM/IEEE International Conference on Human-Robot Interaction

[W6] **K. Winkle**, S. Lemaignan, P. Caleb-Solly, U. Leonards, A. Turton and P. Bremner, "Couch to 5km Robot Coach: An Autonomous, Human-Trained Socially Assistive Robot" in Companion Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction

[W5] **K. Winkle**, M. Jirotko, U. Lyngs, C. Macrae, H. Webb and A. Winfield "“What Could Possibly Go Wrong?” Logging HRI Data for Robot Accident Investigations" in Companion Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction

[W4] Y. Sallami, **K. Winkle**, N. Webb, S. Lemaignan and R. Alami "The Unexpected Daily Situations (UDS) Dataset: A New Benchmark for Socially-Aware Assistive Robots" in Companion Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction

[W3] **K. Winkle** "Social Influence in HRI with Application to Social Robots for Rehabilitation" HRI Pioneers Workshop, Daegu, South Korea 2019

[W2] **K. Winkle**, P. Caleb-Solly, A. Turton and P. Bremner, "Patient engagement with rehabilitative therapy programmes: Therapist strategies and affecting influences" Society of Research in Rehabilitation Winter Conference, Bristol 2018

[W1] **K. Winkle**, "Social Robots for Motivation and Engagement in Therapy," Doctoral Consortium at the 19th ACM International Conference on Multimodal Interaction, Glasgow, UK, 2017

**Popular Science Publications**

[P1] **K. Winkle**, "Can Feminist Robots Challenge Our Biases?", IEEE Spectrum Magazine (2021)