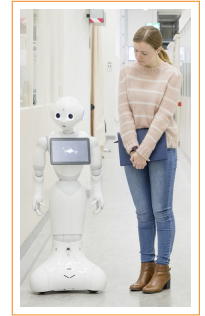# Katie Winkle
*Curriculum Vitae*

*Uppsala Social Robotics Laboratory*
*Department of Information Technology*
*Post: Box 337, 751 05 UPPSALA*
☎ *+46793046942*
✉ *katie.winkle@it.uu.se*

**Mission:** *Responsible development of autonomous socially assistive robots for the real world.*

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

## PhD Degree

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*.

## Employment

Feb 2022 -    **Assistant Professor (Biträdande Universitetslektor) in Social Robotics**,
Division of Vi3; Human-Machine Interaction
Department of Information Technology
Uppsala University, 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.

## Teaching Experience

2020-2022    **Lecturer**, *KTH Royal Institute of Technology*.
50% Responsible for the *DD2413 Social Robotics* unit. Also deliver *'Introduction to (Practical) AI Ethics'* for the DD2380 Artificial Intelligence course, and have delivered *'(Human Robot) Interaction Design'* on the DH2632 Human-Computer Interaction, Research Seminars course.

2017-2018    **University Teaching Associate**, *University of Bristol*.
Lecturer, course responsible and examiner for the 20 credit Robotic Systems computer science at undergraduate and postgraduate level. Received positive student feedback:
*"Lecturing quality of PHD students was excellent especially considering their relative newness to running the course. Katie was particularly good and is perhaps one of the best lecturers in the university at the moment", "The lecture Katie prepared herself about social robotics was excellent"*

2016-2018    **University Teaching Assistant**, *University of Bristol*.
Ran and assessed the Robotics MSc reading groups, provided lab support, solution preparation and marking across engineering and computer science units including: Introduction to Computer Programming Robotic Systems and Bio-Inspired Artificial Intelligence

| 2013-2015 | **Teaching Assistant**, *Bristol Children's Hospital*, University of Bristol. |
| | Part of the 'Students in Schools' outreach programme run by the Widening Participation department. Worked predominantly one-to-one with children of all ages teaching maths, science, DT and IT. Also provided mentoring and pastoral support to adolescent patients. |

## 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 student(s):

| 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

I am currently supervising the following MSc students:

| 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 |

I previously supervised the following MSc students:

| 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 |

## 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* |

## Distinctions and Awards

| 2021 | Top 3 Finalist: Best UK PhD in Robotics Award<br>Awarded 3rd Place in Queen Mary University of London National Competition |
| 2020 | Best Paper Award<br>International Conference on Robot Ethics and Standards |
| 2020 | PhD Awarded Unconditionally and with Nomination for Departmental Award<br>*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<br>*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<br>ACM/IEEE International Conference on Human-Robot Interaction, Chicago, USA |
| 2018 | M H Joseph Prize for Academic Excellence<br>British Federation of Women Graduates |
| 2016 | Undergraduate Visionary Award<br>Institution of Mechanical Engineers |

## Funding, Grants & Scholarships

| 2022 | Uppsala Diabetes Center funding to support appointment of doctoral student 1,6M SEK |
| 2021 | KTH Travel Stipend 33,500 SEK |
| 2020 | Digital Futures Postdoctoral Fellowship 2M SEK |
| 2020 | Jean Golding Institute Seed Corn Funding £2000 |
| 2019 | University of Bristol Alumni Travel Grant £550 |
| 2014–2019 | PhD Robotics EPSRC Doctoral Studentship |
| 2011-2015 | Undergraduate Scholarship *Institution of Mechanical Engineers* |
| 2011-2015 | Women in Engineering Scholarship *Jaguar Land Rover* |

## Academic Service

**Journal Editorial Roles**

| 2022 | Guest Editor, International Journal of Social Robotics<br>*Special Issue on Embodied Agents For Wellbeing* |
| 2022 | Guest Editor, International Journal of Social Robotics<br>*Special Issue on Gender in Robotics* |

**Chair Roles in International Conferences**

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

**Additional Organisation of International Academic Events**

| | |
|---|---|
| Aug 2021, 2022 | Workshop Organiser |
| | *'GENDERING ROBOTS (GENR): Ongoing (Re)configurations of Gender in Robotics' first held jointly with the IEEE International Conference on Robot and Human Interactive Communication (RO-MAN) 2021, with second iteration accepted again for 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 Techology.* |
| 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* |

### International Program Committee Service

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

### 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.* |
| | $https://www.youtube.com/watch?v = OcMLa_v02iY$ |
| 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. Jirotka, 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. Jirotka, 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. Jirotka, 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**, RB. Jackson, A. Berjarano 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. Jirotka, 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)

**Katie Winkle**
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*Department of Information Technology*
*Post: Box 337, 751 05 UPPSALA*
✆ *+46793046942*
✉ *katie.winkle@it.uu.se*

**TekNat Mentorship Program 2022-2023: Letter of Motivation**

April 2022

To whom it may concern,

I am writing to apply for a place on the 2022-2023 TekNat mentorship program for young researchers having just started at Uppsala (biträdande universitetslektorer/assistant professor) from 1st February 2022 (initially at 20%, moving to 100% from 1st June). Previous to this I held a Digital Futures research fellowship at KTH Royal Institute of Technology, which I took up shortly after defending my PhD at the Bristol Robotics Laboratory in Summer 2020.

I am thrilled to have successfully 'made the jump´ from postdoctoral fellow to faculty position, and specifically to be doing so at Uppsala. The decision to stay in Sweden (I received similar offers from US and UK institutions) and specifically to aim for a university with breath of research/education (as opposed to e.g. a technical school like KTH) was deliberate. I believe Uppsala is a fantastic fit for me professionally and personally, and I am tremendously excited to be in receipt of a tenure track position and am committed to working towards tenure here in the coming years.

However, taking on such a position and making this decision to pursue my long-term career in a foreign country, where I do not (yet) fluently speak the native and official language, in a department and scientific field with a relatively low proportion of female academics is also of course *somewhat* daunting, to say the least! This is amplified by the fact that, career-wise, I have progressed relatively quickly, achieving a faculty position less than 2 years after being awarded my PhD. Whilst this reflects the quality of the research I have produced, and the fact that I have already been able to demonstrate the base qualities required for early career faculty, it does mean that I have had less time to e.g. understand and experience practicalities around the Swedish educational and tenure track systems or to be involved in joint grant writing exercises.

My motivation to take part in the mentorship program stems directly from this intersection of *excitement-meets-apprehension* that I find myself in as a new BUL at Uppsala. The program was also (independently) recommended to me by two senior colleagues (Ginevra Castellano and Åsa Cajander), both of whom either took part in/attended one such program previously and felt I would greatly benefit from also doing so, further motivating my interest in taking part.

In summary, I believe I am in an ideal place to maximally gain from this iteration of the mentorship program as I 'get settled' here at Uppsala and try to set good foundations for career progression towards tenure. I am motivated and eager to make the best of the program, and look forward to being an active participant in the associated network - welcoming the chance to network with other young researchers as well as experienced mentors in, what I hope will be, my academic 'home' for the coming, formative years of my career.

Yours sincerely,

Katie Winkle