

Katharina 'Katta' Spiel

Personal

Birthplace Deggendorf, Germany

Languages German (native), English (fluent), Austrian Sign Language (Basics), Latin (written), Ancient Greek (written)

Education

2015–cont. **PhD, Human Computer Interaction**, *Vienna University of Technology*, Vienna (AT), Topic: *“Experiences of Autistic Children with Technologies”*.

Supervisors: Prof. Geraldine Fitzpatrick, Dr. Christopher Frauenberger, Prof. Eva Hornecker

2012–2014 **Computer Science and Media, M.Sc.**, *Bauhaus-Universität*, Weimar (DE), Thesis: *“Frames and Lenses – Framing Gameplay Experience in Games with Eye Movement Based Adaptation”*.

Final grade: **1.3** (scale 1-4)

2008–2012 **Media Systems, B.Sc.**, *Bauhaus-Universität*, Weimar (DE), Thesis: *“Out of Sight – Navigation and Immersion of Blind Players in Text Based Games”*.

Final grade: **1.9** (scale 1-4)

2005–2010 **Media Culture, B.A.**, *Bauhaus-Universität*, Weimar, (DE), Thesis: *“Run, Man, Run – Geschlechtsidentitäten im Italo-Western”*.

Final grade: **1.6** (scale 1-4)

Research Statement

My research focuses on how to include marginalised people better in the development of technologies that concern them. Combining my background in cultural studies and computer science, I do so with a particularly critical eye on power dynamics, agency and notions of participation. In responding to the abilities, needs and desires of my participants, I draw on a range of design and evaluation methods ranging from design workshops and prototyping to quantitative and qualitative evaluation.

During my PhD, I focus on the experiences autistic children make with technologies aimed at their general well-being. To encounter the limits of empathy between researchers and participants, I developed a conceptual grounding for rigorous analysis and a methodological approach for participatory evaluation with autistic children.

Previous work investigated the effect of framing a game context on players' experiences and the interplay of navigation system and immersion for blind players in text-based games. Additionally, I have published in the areas of film education, gender studies and critical algorithm theory.

Awards & Honours

- 2017 **Three Honorable Mentions at premier HCI publication venue: CHI'17.**
top 5% of 2400 submissions
- 2016 **Honorable Mention at premier HCI publication venue: CHI'16.**
top 5% of 2400 submissions
- 2009–2014 **Heinrich Böll Foundation – Scholarship, EUR 36.000.**
competitive funding scheme for excellent students with a record in service work

Academic Employment

- 09/14–07/17 **Project Assistant at the FWF-funded Project OutsideTheBox, Vienna University of Technology, Vienna, led by Dr. Christopher Frauenberger.**
Within the team, I co-designed technologies with autistic children for their holistic well-being. My core responsibility was the evaluation of these technologies.
- 03/16–10/16 **Project Assistant at ILUM, Vienna University of Technology, Vienna, led by Prof. Geraldine Fitzpatrick.**
We developed a digital layer for way-finding pillars as a mobile app. Within the team, I planned and held different design workshops with participants.
- 12/13–01/15 **Research Assistant at the Centre for Institutional Development, Bauhaus-Universität, Weimar, Germany.**
I maintained the Confluence system technically and gave user support. I also designed work flows and the required templates for those.
- 09–10/13 **Research Assistant at the chair for Philosophy of Audiovisual Media, Bauhaus-Universität, Weimar, Germany, Prof. Christiane Voss.**
I designed the website for the chair and gave an introduction to staff about the underlying Typo3 system.
- 10/12–08/13 **Teaching Assistant at the Chair for Media Security, Bauhaus-Universität, Weimar, Prof. Stefan Lucks.**
Provided feedback and individual support for assignments associated with lectures containing introductory and advanced cryptography

Service

Organisation of Talks

- 2014 – 2016 Organisation of the Lunchtime Seminars at the Institute of Design and Assessment of Technology at Vienna University of Technology
- 2015 Co-organisation of FemCamp Wien 2015 – queerfeminist Barcamp
- 2014 Organisation of a workshops concerning "practices of surveillance" at the chair for *History and Theory of Cultural Techniques* – Bauhaus-Universität Weimar
- 2008 Organisation of a series of talks concerning privacy and surveillance together with the student initiative *maschinenraum* – Bauhaus-Universität Weimar

Voluntary Teaching

- 2015 Teaching at welcome.TU.code – an initiative teaching basic computer literacy skills to refugees

2015 Teaching at Kinderuni – a yearly summer event teaching scientific contents to children aged 6–12

University Representation

2016–cont. Substitute member of the senate of Vienna University of Technology

2006–2014 Member of the students' association of the Faculty of Media; thereby amongst other memberships: member of the student convent, council of the Faculty of Media, commission for graduations, political spokesperson of the students, head of division of student finances – all at Bauhaus Universität

Reviewing

2017 Conference on Tangible, Embedded and Embodied Interactions, Conference on Human Factors in Computing Systems, Designing Interactive Systems, Conference on Interaction Design and Children, International Journal of Child-Computer Interaction

2016 Conference on Tangible, Embedded and Embodied Interactions; Conference on Human Factors in Computing Systems; NordiCHI; CHIPlay

2015 Conference on Creativity and Cognition; CHIPlay; Conference on Interaction Design and Children; Conference on Advances in Computer Entertainment; Interaction Design and Architecture(s) (Journal)

Student Volunteer

2017 Conference on Human Factors in Computing Systems; Designing Interactive Systems; SIGCHI student representative at the Turing Award

2016 Conference on Human Factors in Computing System; Conference on Interaction Design and Children

Community Service

2015–cont. Co-Founder and Member of Chronically Academic

2015–cont. Roller Derby Official (Skating and Non-Skating)

2010–2016 Programmer and Player Liaison at Discworld MUD

2009–2014 Member of the Weimar City Council; partly as caucus leader

2006–2009 State and federal positions in a political youth organisation; including work as an editor and writer at the internal magazine for two consecutive years

Invited Talks

March 2017 **Beyond Empathy — Including Marginalised Users in Participatory Research**, *ChaTLab (Children and Technology) in Psychology and Creative Technology*, University of Sussex, Brighton/Falmer, United Kingdom, invited.

December 2016 **Mapping a Grätzl**, *Smart Cities Symposium of the Institute of Design and Assessment of Technology*, TU Wien, Vienna, Austria, invited.

July 2016 **Evaluating Experiences of Autistic Children with Technologies**, *Cognitive Media Technologies Research Group*, Universitat Pompeu Fabra, Barcelona, Spain, invited.

- June 2016 **Wie erfahren autistische Kinder Technologien?**, *uDay XIV*, Dornbirn, Austria, invited after reviewed submission.
 engl.: How do autistic children experience technologies?
- April 2016 **Breaking the Wall of Autism and Technology**, *Falling Walls Lab*, Vienna, Austria, invited after reviewed submission.
- Oct. 2015 **Autismus und Technologien**, *Nomaden Österreich*, Vienna, Austria, invited.
 engl.: Autism and Technologies; together with Christopher Frauenberger
- Aug. 2015 **OutsideTheBox, Year One**, *Stadtschulrat Wien*, Vienna, Austria, invited.
 together with Christopher Frauenberger
- May 2015 **Perspektiven zu Behinderung**, *Tag der Pflege, TU Wien*, Vienna, Austria, invited.
 engl.: Perspectives on Disability; together with Christopher Frauenberger

Teaching

- W2015–
S2017 **Exploratory Design**, *Project work spanning two semesters combining theory and praxis*, 16 students/year.
- W2015 **Introduction to Programming**, *Applied courses*, 40 students.
- S2013 **Cryptography and Media Security**, *Lecture*, 40 students.
 as Teaching Assistant
- W2012 **Discrete Structures**, *Lecture*, 50 students.
 as Teaching Assistant

Exhibitions

- Oct. 2015 **Wunderkammer Wien**, *Vienna, Austria*.
- Nov. 2015 **Changing Worlds**, *Vienna, Austria*.
- July 2007 **summaery of Bauhaus Universität**, *Weimar, Germany*.

Publications

Peer-Reviewed Journal Publications

- (1) **K. Spiel**, C. Frauenberger, G. Fitzpatrick. Experiences of Autistic Children with Technologies. *International Journal of Child Computer Interaction (IJCCI)*, Volume 11 (January 2017), pages 50–61
- (2) **K. Spiel**, S. Bertel, M. Heron. Navigation and Immersion of Blind Players in Text Based Games. *Computer Games Journal*, 11 (2014)

Book Chapter

- (3) A. Balugdzic, A.-H. Brendler, A. Heimerl, J. Klein, J. Lihl, L. Meier, J. Sichtung, **K.Spiel**. Filme bilden. in: L. Eckert, S. Martin (ed.): *Film-Bildung*, Schüren, Marburg, 2014

Peer-Reviewed Conference Publications

- (4) C. Frauenberger, J. Makhaeva, **K. Spiel**. Blending Methods: Developing Participatory Design Sessions for Autistic Children. Accepted for IDC'17, ACM.

- (5) **K. Spiel**, L. Malinverni, J. Good, C. Frauenberger. Participatory Evaluation with Autistic Children. Accepted for CHI'17, ACM. **Honorable Mention (top 5% of 2400 submissions)**
- (6) **K. Spiel**, C. Frauenberger, E. Hornecker, G. Fitzpatrick. When Empathy is Not Enough: Assessing the Experiences of Autistic Children with Technologies. Accepted for CHI'17, ACM. **Honorable Mention (top 5% of 2400 submissions)**
- (7) **K. Spiel**, S. Bertel, F. Kayali. "Not another Z piece!" – Adaptive Difficulty in TETRIS. Accepted for CHI'17, ACM. **Honorable Mention (top 5% of 2400 submissions)**
- (8) J. Makhaeva, C. Frauenberger, **K. Spiel**. Creating Creative Spaces for Co-Designing with Autistic Children – The Concept of a "Handlungsspielraum". In PDC'16, pages 50–61, ACM.
- (9) C. Frauenberger, J. Makhaeva, **K. Spiel**. Designing Smart Objects with Autistic Children: Four Design Exposés. In CHI'16, pages 130–139, ACM. **Honorable Mention (top 5% of 2400 submissions)**
- (10) **K. Spiel**, J. Makhaeva, C. Frauenberger. Embodied Companion Technologies for Autistic Children. In: TEI'16, pages 245–252, ACM.
- (11) S. Wetzel, **K. Spiel**, S. Bertel. Dynamically Adapting an AI Game Engine Based on Players' Eye Movements. In: EICS'14, pages 3–12, ACM.
- (12) **K. Spiel**. Surveil and Calculate. In: XII. Conference Culture and Computer Science, 2014, Springer.

Accepted Workshop Proposal

- (13) C. Frauenberger, J. Makhaeva, **K. Spiel**. Interaction Design and Autistic Children. Workshop at IDC'17 in Stanford.

Peer-Reviewed Workshop Submissions

- (14) **K. Spiel**. Critical Experience – Evaluating (with) Autistic Children and Technologies. In CHI'17 Doctoral Consortium.
- (15) **K. Spiel**. Evaluating Experiences of Autistic Children with Technology. In IDC'16 Doctoral Consortium.
- (16) **K. Spiel**, C. Frauenberger, J. Makhaeva, F. Kayali. Talking about Myself – Playful Inquiry into an Absent Life World. In CHI'16 Workshop on Games as HCI-Method.
- (17) C. Frauenberger, J. Makhaeva, **K. Spiel**. Participation OutsideTheBox. In Aarhus 2015 – Critical Alternatives Workshop on Unfolding Participation.

Invited Magazine Articles

- (18) **K. Spiel**. Datenverarbeitung. In: Eject – Zeitschrift für Medienkultur, 1/2014, Weimar
- (19) **K. Spiel**. Out of Sight – Navigation and Immersion of Blind Players in Text-Based Games. In: Port – studentisches Magazin der Bauhaus-Universität Weimar, 2013, Weimar. (selected contribution for Media Systems)
- (20) **K. Spiel**. Boys Can't Cry. In: Eject – Zeitschrift für Medienkultur, 2/2011, Weimar