

# Nadine Wagener

# Postdoctoral Researcher

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## Formal Education

	<b>Doctor of Engineering</b> , <i>Digital Media Lab</i> , <i>University of Bremen</i> , Human-Computer Interaction, Title of the dissertation: "Making Space for Self-Care: Designing Virtual Reality Applications to Empower Everyday Well-Being".  Referees: Johannes Schöning (University of St. Gallen, Switzerland), Yvonne Rogers (UCLIC, London, UK); defense: 24/06/24, Honors: Summa Cum Laude
2016 – 2019	Master of Science, <i>Bielefeld University</i> , Interdisciplinary Media Sciences, grade 1.1 (on a scale of 1 to 5, 1 is the best), Germany.
2013 – 2016	<b>Bachelor of Arts</b> , <i>Paderborn University</i> , Media Sciences and English-speaking Literature/Culture, grade 1.3 (on a scale of 1 to 5, 1 is the best), Germany.

2005 – 2013 **School Education and Abitur (High School Diploma)**, *Gustav-Stresemann-Gymnasium*, Germany, grade 1.0 (on a scale of 1 to 5, 1 is the best).

# Academic Work Experience

- Nov 2024 **Postdoctoral Researcher**, Sensorimotor Group led by Dr. Paul Strohmeier, Max ongoing Planck Institute for Informatics, Saarbrücken, Germany, Human-Computer Interaction.
  - Nov 2024 Research Stay, at The Immersive Computing Lab, New York University (NYU) led by Prof. Qi Sun.
- June 2024 **Postdoctoral Researcher**, *Digital Media Lab, University of Bremen*, Human-Computer Oct 2024 Interaction.
- 2019 2024 PhD Student, Digital Media Lab, University of Bremen, Human-Computer Interaction.
  - 2019 Internship with Volkswagen AG, Master thesis was written in cooperation with Volkswagen within a 10-month internship, title of Master thesis: "Virtual Reality gestützte Evaluation in der Automobilindustrie: Studien zur Gestaltung und Akzeptanz von Fragebögen in virtueller Realität", grade: 1.0 (on a scale of 1 to 5).
  - 2015 Semester Abroad, The University of Notre Dame, Australia.
- 2016 2019 **Student Assistant**, *Paderborn University*, Germany. preparation of teaching material, grading and tutoring for the whole three years

# Teaching & Supervision

## Courses and Assessments

- ongoing **Second Supervisor**, title: "Redesigning the Feedback Tutor User Interface to Increase Student Motivation in the Learning Process", reviewing and grading of a Bachelor Thesis as second supervisor.
  - 2024 Seminar Leadership in a GenAl Workshop, title: "Day 6 Haptics and Virtual Reality/Augmented Reality", Within this 7-day long workshop, we explored benefits and drawbacks of using Al and LLM's in current HCl literature by researching core publications to a specific field per day. I hosted day 6 of the workshop, which dealt with CHI and UIST publications regarding Al and LLMs for haptics, VR and AR, and which included me chairing a brainstorming session of how those relate to research of the group in regard to .
  - 2024 Seminar Leadership in a Winter School, title: "Supporting Mental & Physical Health with Large Language Models (LLM's)", the 7-days winter school delved into "ML for HCI and Social Science" as well as "A Human-Centered Perspective on LLMs" and was organised by the LMU Munich. I was invited as a speaker, organising a 2-hour slot consisting of a keynote and interactive sessions. https://www.hcilab.org/event/winterschool-2024/.
  - 2023 Seminar Leadership in a Summer School, title: "'Being well' as a Researcher", talking both about strategies for own mental well-being applicable during a PhD and about how to conduct 'good' human-centred research, in particular with vulnerable user groups, the 3-days summer school delved into "Spaces and Interfaces: A Summer School on HCI for Well-being" and was co-organised by myself and the University of Bremen, https://wellbeing.hci.rocks/summer-school.
- 2013 2016 **Student Assistant**, *Paderborn University*, Germany. preparation of teaching material, grading and tutoring for the whole three years

## Thesis Supervision PhD and Master

- ongoing **PhD**, Creepy Technologies: A Strong Concept for Interaction Design, general supervision and mentoring of the PhD candidate of University of Oslo, including but not limited to providing support with statistics, writing, study design, graphical elements created with Figma, finding related work, conducting the studies.
- ongoing Master Thesis, MusicalGenAl: How Interacting with a Generative Al Musical Tool Affects Agency, teaching of basic statistics, writing, study design; graphical elements created with Figma, finding related work, conducting the studies.
- ongoing Master Thesis, Exploring the Impact of an Emotion Regulation VR Tool Using Visual Metaphors, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
- ongoing Master Thesis, Exploring the Emotional Impact of User Autonomy in Virtual Reality Weather Manipulation, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
- 2023 2024 **Master Thesis**, Exploring the Impact of a Multiplayer VR Application on Emotions, Empathy and Reflection in the Context of Teenage Relationships, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
  - 2023 **Master Thesis**, *Leveraging Data from mHealth Applications to Infer Mental Health States*, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
  - 2022 Master Thesis, Influence of the Observer Perspective in Remote VR Studies, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
- 2020 2022 Master Thesis, Walking on Grass: Influence of Passive Haptic and Auditory Feedback at Feet Level on Presence in Virtual Reality Environments, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.

#### Thesis Supervision Bachelor

- ongoing **Bachelor Thesis**, Autonomous Weather Adjustment in VR for Emotional Impact, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
  - 2022 **Bachelor Thesis**, ARmotionify: Developing a Prototype of an Augmented Reality App for Supporting Emotional Expression, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
  - 2022 **Bachelor Thesis**, *Measurement of Actions in a VR Environment through Event-Logging*, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
  - 2022 **Bachelor Thesis**, *Entwicklung eines Bubble Evaluationstools für Virtual Reality*, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.

- 2021 **Bachelor Thesis**, Automatische Änderung von Licht- und Farbparametern in einer Virtual-Reality-Umgebung anhand von Herzfrequenzmessung durch Smartwatches, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
- 2021 **Bachelor Thesis**, *Investigating Gestures for Menus in VR and AR*, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.
- 2021 **Bachelor Thesis**, *Gesture-based Interaction for Mobile VR Simulations: Possibilities and Limitations*, teaching of basic statistics, writing, study design; training in Unity and graphical elements created with Figma, finding related work, conducting the studies.

## Awards and Grants

- 2024 **Honorable Mention**, at ACM Designing Interactive Systems (DIS), for the paper "MoodShaper: A Virtual Environment for Managing Negative Emotions".
- 2024 Special Recognition for Outstanding Reviews, CHI Full Papers.
- 2023 Best Doctoral Consortium Presentation Award, IEEE VR.
- 2022 2023 MMM Grant, PI: Rainer Malaka, title: "Design Space of Virtual Environments: Creating a Feedback Loop for Users using Physical and Mental Health Data Gathered by Smartwatches", my role: co-investigator and driving researcher together with one colleague for three studies conducted within this research endeavour.

  This project was funded with 76.000 Euro. The goal is to explore how smartwatch-gathered physical and emotional health data can be used to generate meaningful feedback in VR. Users generate their own input via health data which automatically changes VR parameters, e.g.
  - 2022 Special Recognition for Outstanding Reviews, CHI PLAY Full Papers.

## Invited Talks, Lab Visits and Seminars

ambient light, which in turn affects users

- Dec 2024 Invited Talk, Northeastern University, title: "Ludic Elements in Affective XR Interactions", at College of Arts and Media Design led by Prof. Casper Harteveld.

  Boston, USA
- Dec 2024 Invited Talk, Wellesley College, title: "Towards Self-Efficacy in Affective XR Interactions", at Wellesley College Human-Interaction Lab led by Prof. Orit Shaer.

  Boston, USA
- Dec 2024 Lab Visit, Northeastern University, at Khoury College of Computer Sciences led by Prof. Seth Cooper.

  Boston, USA
- Dec 2024 Lab Visit, Cornell Tech, at the AIR Lab led by Prof. Angelique Taylor. New York, USA
- Nov 2024 Invited Talk, Cornell Tech, title: "The Fabrication of Affective VR Interactions", at the Matter of Tech lab led by Prof. Thijs Roumen.

  New York, USA

- Oct 2024 Invited Talk, Max Planck Institute for Informatics (MPI), title: "Making Space for Self-Care & Agency in Affective Interactions", at Sensorimotor Interaction group (senSInt) led by Dr. Paul Strohmeier.

  Saarbrücken, Germany
- Feb 2024 Invited Talk, UCLIC, title: "Making Space for Self-Care: How to Design Self-Care Technologies", at Interaction Centre (UCLIC) of University College London (UCL) led by Prof. Yvonne Rogers.

  London, UK
  - 2023 Dagstuhl Seminar 23482, title: "Social XR: The Future of Communication and Collaboration", I was invited by Katherine Isbister from University of California, Santa Cruz, and Mark Billinghurst, Empathic Computing Lab/University of South Australia, to participate in this 1-week seminar and to give a talk titled: "Fostering Well-being, Communication & Empathy with VR".
    Wadern, Germany
  - 2023 **Invited Talk & Participation**, *University of St. Gallen*, title: "How to Survive Your PhD", talk given during a writing retreat together with 25 people from different universities.
    - St. Gallen, Switxerland
  - 2022 Invited Talk, Brunel University London, title: "Defining the Design Space of Mental Well-being Support VR Apps".
    London, UK
  - 2022 **Invited Talk**, *German Pre-CHI in Ulm*, title: "Defining the Design Space of Virtual Reality Apps for Well-being and Mental Health".

    Ulm, Germany
  - 2022 Invited Talk, Empathic Computing Lab, New Zealand, title: "Defining the Design Space of Virtual Reality Apps for Well-being and Mental Health".

    Auckland, New Zealand
  - 2022 Invited Talk, TU Berlin, title: "Defining the Design Space of Virtual Reality Apps for Well-being and Mental Health".
    Berlin, Germany

# Academic Service and Volunteering

- 2025 Short Papers Chair, for MuC 25.
- 2024 AC, for CHI25, User Experience & Usability Subcommittee.
- **2024 Papers Chair**, International Conference on Mobile and Ubiquitous Multimedia (MUM).
- 2024 **Posters Chair**, International Conference on Mobile and Ubiquitous Multimedia (MUM).
- **2024 Demo Organiser**, *i2b*, at University of Bremen.
- 2023 Student Research Competition Chair, for Mensch und Computer (MuC).
- 2023 **Demo Organiser**, *HSGforscht!*, University of St. Gallen, Switzerland.
- 2023 Workshop Organiser, title: "EmpathiCHI", at CHI 2023.

- **Workshop Organiser**, *title: "X Reality for intention realisation and goal planning"*, University of St. Gallen, Switzerland, 6-day event.
- **Workshop Organiser**, *title "Winter Meeting"*, University of St. Gallen, Switzerland, 5-day event for 15 people.
- 2023 **Summer School Organiser**, *University of Bremen, Germany*, title: "Spaces and Interfaces: A Summer School on HCI for Well-being", 42 students, PhD students, professors from 14 countries were invited to this 3-day summer school to discuss new methods of well-being and design in HCI, https://wellbeing.hci.rocks/summer-school.
- **Demo Organiser**, *HSGforscht!*, University of St. Gallen, Switzerland.
- **Event Organiser**, *CHITogether*, Writing workshop before the CHI deadline, organised for 25 people.
- **Local Chair**, International Conference on Quality of Multimedia Experience: Towards Technology for Well-Being and Excellence (QoMEX).
- **Event Organiser**, *CHITogether*, Writing workshop before the CHI deadline, organised for 25people.

#### Reviewing Activities

- 2025 CHI, full papers.
- 2024 PAUC, Personal and Ubiquitous Computing, (journal).
- 2024 CHI, full papers.
- 2024 CSCW, full papers.
- 2024 MuC, full papers.
- 2024 NordiCHI, full papers.
- 2024 MuM, full papers.
- 2024 MuM, short papers.
- 2023 CHI, full papers.
- 2023 CSCW, full papers.
- 2023 **TEI**, full papers.
- 2022 CHI, full papers.
- 2022 CHI PLAY, full papers.
- 2022 **CSCW**, full papers.
- 2022 CHI PLAY, Work-In-Progress papers.
- 2021 INTERACT, Short papers.

#### Student Volunteering

- 2022 Student Volunteering, IEEE VR.
- 2021 Student Volunteering, UbiComp/ISWC.
- 2020 Student Volunteering, MobileHCl.

## References

- **Prof. Yvonne Rogers, FRS**, head of UCLIC at University College London (UCL), UK, Email: y.rogers@ucl.ac.uk.
- **Prof. Dr. Paweł W. Woźniak**, *Human-Computer Interaction Group at Tu Wien, Austria*, Email: pawel.wozniak@tuwien.ac.at.
- **Prof. Dr. Johannes Schöning**, *Computer Science, University of St. Gallen, Switzerland*, Email: johannes.schoening@unisg.ch.
- **Prof. Dr. Jasmin Niess**, *Human-Computer Interaction at the University of Oslo, Norway*, Email: jasminni@ifi.uio.no.

## **Publications**

## Full Papers

- E. Stefanidi, **N. Wagener**, I. Chatzakis, P. W. Woźniak, S. Ntoa, G. Margetis, Y. Rogers, and J. Niess, "Supporting communication and well-being with a multistakeholder mobile app: Lessons learned from a field study with adhd children and their caregivers," *CSCW*, 2025, accepted, to be published.
- A. E. Scott, L. Reicherts, A. K. Purohit, E. Hossain, E. Stefanidi, **N. Wagener**, J. Schöning, Y. Rogers, and A. Holzer, "Diy digital interventions: Behaviour change with trigger-action programming," *Proc. ACM Hum.-Comput. Interact.*, vol. 8, no. MHCI, Sep. 2024. [Online]. Available: https://doi.org/10.1145/3676497
- E. Stefanidi\*, **N. Wagener\***, D. Augsten, A. Augsten, P. Wozniak, Y. Rogers, and J. Niess, "Teenworlds: Supporting emotional expression for teenagers with their parents and peers through a collaborative vr experience," in *30th ACM Symposium on Virtual Reality Software and Technology (VRST '24), October 9–11, 2024, Trier, Germany*, 2024, note: \*shared first authorship. [Online]. Available: https://doi.org/10.1145/3641825.3687754
- Honourable Mention | top 5%, **N. Wagener**, A. Kiesewetter, L. Reicherts, P. W. Woźniak, J. Schöning, Y. Rogers, and J. Niess, "Moodshaper: A virtual reality experience to support managing negative emotions," in *Proceedings of the Conference on Designing Interactive Systems (DIS)*. ACM, 2024. [Online]. Available: https://doi.org/10.1145/3643834.3661570
- J. Rasch, M. J. Zender, S. Sakel, and **N. Wagener**, "Mind mansion: Exploring metaphorical interactions to engage with negative thoughts in virtual reality," in *Proceedings of the Conference on Designing Interactive Systems (DIS)*. ACM, 2024. [Online]. Available: https://doi.org/10.1145/3643834.3661557
- C. Stellmacher, F. Mathis, Y. Weiss, M. B. Loerakker, **N. Wagener**, and J. Schöning, "Exploring mobile devices as haptic interfaces for mixed reality," in *Proceedings of the CHI Conference on Human Factors in Computing Systems*, 2024, pp. 1–17. [Online]. Available: https://doi.org/10.1145/3613904.3642176
- **N. Wagener**, M. Bentvelzen, B. Dänekas, P. W. Woźniak, and J. Niess, "Veatherreflect: Employing weather as qualitative representation of stress data in virtual reality,"

- in *Proceedings of the 2023 ACM Designing Interactive Systems Conference (DIS)*, 2023, pp. 446–458. [Online]. Available: https://doi.org/10.1145/3563657.3596125
- **N. Wagener**, J. Schoning, Y. Rogers, and J. Niess, "Letting it go: Four design concepts to support emotion regulation in virtual reality," in *2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*. IEEE, 2023, pp. 763–764. [Online]. Available: https://ieeexplore.ieee.org/document/10108749
- **N. Wagener**, L. Reicherts, N. Zargham, N. Bartłomiejczyk, A. E. Scott, K. Wang, M. Bentvelzen, E. Stefanidi, T. Mildner, Y. Rogers *et al.*, "Selvreflect: A guided vr experience fostering reflection on personal challenges," in *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, 2023, pp. 1–17. [Online]. Available: https://doi.org/10.1145/3544548.3580763
- **N. Wagener**, "[dc] fostering well-being with virtual reality applications," in 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW). IEEE, 2023, pp. 965–966. [Online]. Available: https://ieeexplore.ieee.org/document/10108787
- **N. Wagener**, J. Niess, Y. Rogers, and J. Schöning, "Mood worlds: A virtual environment for autonomous emotional expression," in *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*, 2022, pp. 1–16. [Online]. Available: https://doi.org/10.1145/3491102.3501861
- **N.** Wagener, A. Ackermann, G.-L. Savino, B. Dänekas, J. Niess, and J. Schöning, "Influence of passive haptic and auditory feedback on presence and mindfulness in virtual reality environments," in *Proceedings of the 2022 International Conference on Multimodal Interaction*, 2022, pp. 558–569. [Online]. Available: https://doi.org/10.1145/3536221.3556622
- **N. Wagener**, T. D. Duong, J. Schöning, Y. Rogers, and J. Niess, "The role of mobile and virtual reality applications to support well-being: An expert view and systematic app review," in *Human-Computer Interaction–INTERACT 2021:* 18th IFIP TC 13 International Conference, Bari, Italy, August 30–September 3, 2021, Proceedings, Part IV 18. Springer, 2021, pp. 262–283. [Online]. Available: https://doi.org/10.1007/978-3-030-85610-6\_16
- **N. Wagener**, M. Stamer, J. Schöning, and J. Tümler, "Investigating effects and user preferences of extra-and intradiegetic virtual reality questionnaires," in *Proceedings of the 26th ACM Symposium on Virtual Reality Software and Technology (VRST)*, 2020, pp. 1–11. [Online]. Available: https://doi.org/10.1145/3385956.3418972

## **Further Publications**

**N. Wagener**, M. Loerakker, P. Wozniak, and J. Niess, "Light me up! ambient light increases heart rate and perceived exertion during high-intensity virtual reality exergaming," in *Adjunct Proceedings of the 2024 Nordic Conference on Human-Computer Interaction (NordiCHI Adjunct 2024), October 13–16, 2024, Uppsala, Sweden*, 2024. [Online]. Available: https://doi.org/10.1145/3677045.3685427

- **N. Wagener**, E. Stefanidi, and L. Reicherts, "Supporting collaborative reflection for teenagers through shared emotional expression in virtual reality," 2023. [Online]. Available: https://llnq.com/cgCKP
- Y. Sun, C. Stellmacher, A. Kaltenhauser, **N. Wagener**, D. Neumann, and J. Schöning, "Alt text and alt sense in vr: Engaging screen reader users within the metaverse through multisenses," *CHI '23 Workshop*, 2023. [Online]. Available: https://scholar.google.com/citations?view\_op=view\_citation&hl=de&user=f8WhzMcAAAAJ&sortby=pubdate&citation\_for\_view=f8WhzMcAAAAJ: Y0pCki6q\_DkC
- **N.** Wagener, B. Dänkeas, and J. Niess, "Considering colored light for identifying and reflecting on emotions," *CHI '22 Workshop*, 2022. [Online]. Available: https://hci.uni-bremen.de/wp-content/uploads/2022/03/Emotions\_Workshop\_CHI\_22\_Wagener\_final.pdf
- **N. Wagener**, J. Niess, and Y. Rogers, "Considering fundamental psychological needs in virtual reality experiences," *CHI '22 Workshop*, 2022. [Online]. Available: https://hci.uni-bremen.de/wp-content/uploads/2022/03/SDT\_Workshop\_CHI\_22\_Wagener.pdf
- **N. Wagener** and J. Niess, "Reflecting on emotions within vr mood worlds," in *Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers*, 2021, pp. 256–260. [Online]. Available: https://dl.acm.org/doi/10.1145/3460418.3479342
- C. Stellmacher, **N. Wagener**, and Maruszczyk, "Enhancing vr experiences with smartwatch data," *CHI '21 Workshop on Everyday Proxy Objects for VR (EPO4VR)*, 2021. [Online]. Available: https://hci.uni-bremen.de/wp-content/uploads/2021/03/Enhancing-VR-Experiences-with-Smartwatch-Data\_camera\_ready.pdf
- **N. Wagener**, J. Schöning, and Y. Rogers, "Mitigating the negative impacts when designing educational vr applications for children," *CHI '20 Workshop*, 2020. [Online]. Available: https://hci.uni-bremen.de/wp-content/uploads/2020/03/Negative\_Impacts\_VR\_Children\_\_CHI\_Workshop\_2020.pdf
- **N. Wagener** and J. Schöning, "Symmetric evaluation: An evaluation protocol for social vr experiences," *CHI '20 Workshop*, 2020. [Online]. Available: https://hci.uni-bremen.de/wp-content/upl