



André Calero Valdez

Human-Computer Interaction and Usable Safety Engineering

Research focus: Human-Computer Interaction, eHealth, AI and Recommender Systems, Information visualization, Technology Acceptance

About me

Email calerovaldez@imis.uni-luebeck.de.

www www.imis.uni-luebeck.de.

www www.calerovaldez.com.

Languages German (mother tongue).
English (proficient).
Spanish (basic knowledge).

Academic metrics

Citations 1670.

h-Index 20.

i10-Index 49.

ResearchGate 24.71.

Third party funding approx. 1.7 Mio €.

Work Experience

2022–present **Professor for Human-Computer Interaction and Usable Safety Engineering**, University of Lübeck, Germany.

2020–2022 **Project Lead KISTRA**, RWTH Aachen University, Germany.

○ Collaborative Project: BMBF, Germany

2018–2020 **Head of Consortium SmartIdentifikation**, RWTH Aachen University, Germany.

○ Collaborative Project: Germany/Austria

○ Role: Project Lead. Team: 1 PhD students, 2 student assistants

✉ calerovaldez@imis.uni-luebeck.de • www.imis.uni-luebeck.de

🐦 [sumidu](#) • [sumidu](#)

- 2018–2022 **Junior Research Group Leader**, RWTH Aachen University, Germany.
 - Junior research group Digitale Mündigkeit
 - Role: Project Lead. Team: 3 PhD students, 2 student assistants
- 2016 **Guest Researcher**, Prof. Katrien Verbert, KU Leuven, Belgium.
 - HCI in Recommendation Systems
- 2016–2022 **Post-Doc/Senior Researcher**, Prof. Martina Ziefle, Chair for Communication Science, RWTH Aachen University.
 - Permanent contract. Akademischer Oberrat.
- 2014–2016 **Post-Doc/Senior Researcher**, Prof. Martina Ziefle, Human-Computer Interaction Center, RWTH Aachen University.
 - DFG-Project: EXC-128 - Integrative Production Technology for High Wage Countries
- 2014–present **Visiting Professor**, Prof. Andreas Holzinger, Institut for medical informatics, statistics and documentation at the Medical University Graz, Austria.
 - HCI in Knowledge Discovery and Machine Learning
- 2011–2014 **Research Assistant**, Prof. Martina Ziefle, Human-Computer Interaction Center, RWTH Aachen University.
 - DFG-Project: EXC-128
 - BMBF-Project: iNec 01HH11045 - Innovation by Way of Experts Communities during Demographic Change
- 2009–2011 **Research Assistant**, Prof. Martina Ziefle, Human-Technology Center (HumTec), RWTH Aachen University.
 - BMWI-Project: Cairo - Context-Aware Intermodal Routing
- 2007–2008 **Computer Scientist**, Atos Worldline, Aachen, Germany.
 - Establish code review guidelines for OWASP security
 - Explore platform options for payment-platform (Java EE)

Scientific Degrees

- 2007–2013 **PhD Psychology**, Faculty of Philosophy, RWTH Aachen University.
 - Topic: Technology Acceptance and Diabetes - User-centered design of small-screen devices for patients with diabetes
 - Grade: summa cum laude (with highest honor)

Education

- 2001–2007 **Course of Study: Computer Science Diplom**, Faculty of Mathematics, Computer Science, and Natural Sciences, RWTH Aachen University, Germany.
 - Major: Software-Construction
 - Minor: Psychology
 - Topic of Thesis: Design of a Benchmark and a tool for measuring performance of database access layers
 - Grade: very good

Funded Projects

- 2020 Grant: TALgers - Transparenz in AI, own share 45,000.- Euro. DFG-Excellence funds
- 2020 Grant: Kistra, Research area police and intelligence services - Use of AI for early detection of crimes, Funding Volume 3 Mio Euro, own share: 275,175.- Euro. BMBF

- 2018 Grant: E-Learning Project: ShinyStats, Funding volume 5,000.- Euro.. RWTH Digitization Fund
- 2018 Grant: SmartIdentifikation, Total funding volume 950,000.- Euro, Own share: 302,767.- Euro.. BMBF
- 2017 Grant: Junior Research Group: Digitale Mündigkeit, Funding volume 949,500.- Euro.. NRW
- 2017 Grant: Getting around in Cyberspace. Together with Prof. Martina Ziefle, Prof. Leif Kobbelt, Funding volume (own share) 65,000.- Euro.. RWTH-Aachen Profile Area for Information and Communication Technology
- 2009 Grant: RWTH Aachen University Doctoral Scholarship for Students with excellent degrees.. RWTH Aachen University

Awards

- 2019 Best Paper Award: “Hey, Siri”, “Ok, Google”, “Alexa”. Acceptance-relevant factors of virtual voice-assistants. IEEE Conference on Professional Communication
- 2018 Best Poster Award: Political Opinions of Us and Them and the Influence of Digital Media Usage.. EuroCSS 2018 Conference
- 2014 Award: Borchers-Insignia of the proRWTH e.v. for an outstanding doctoral dissertation RWTH Aachen University.. RWTH Aachen University
- 2013 Best Paper Award: The Impact of User Diversity on the Willingness to Disclose Personal Information in Social Network Services.. SoutCHI 2013 Conference
- 2013 Best Presentation Award: Personality Influences on Etiquette Requirements for Social Media in the Work Context.. SoutCHI 2013 Conference
- 2011 Best Paper Award: Openness to Accept Medical Technology - A Cultural View.. USAB 2011 Conferences

Memberships

Member of Gesellschaft für Informatik (GI).

Member of Association for Computing Machinery (ACM).

Member of Institute of Electrical and Electronics Engineers (IEEE).

Member of the American Psychological Association (APA).

Member of Technical Committee: Work with Computer Systems (WWCS) of the International Ergonomics Association (IEA).

Member Technical Committee: Visual Ergonomics of the International Ergonomics Association (IEA).

Member of the Expert-Network: Human-Computer Interaction in Knowledge Discovery and Data-Mining (HCI-KDD).

Member of the European Social Simulation Association (ESSA).

Reviews and Editorial Boards

- Program-committee** Human Factors in Information Visualization (HFIDSS), UMAP Conference, MISDOOM Conference, Workshops at the Mensch und Computer and HCI International Conferences.
- Editorial-Board** ACM SigCHI Associate Editor, ACM SigCHI Associate Editor Late Breaking Results, ACM UMAP LBR and Demos, Digital Human Modeling Conference, BELIV Workshops at IEEE VIS, Wirtschaftsinformatik (WI), HealthRecSys Workshops at ACM RecSys, EnChiRes Workshops at ACM EICS, CD-MAKE Conference at ARES, USAB Conference, HCI-KDD Workshops, HFIDSS-Workshops.
- Adhoc Reviews** Computers in Human Behavior, User Modeling and User-Adapted Interaction, Journal of Medical Internet Research, Interacting With Computers, International Journal of Human-Computer Studies, Artificial Intelligence in Medicine, ACM Computing Surveys, ACM RecSys, ACM SIGCHI, ACM UMAP, ACM MobileHCI, ACM TVX, ACM ICIS, IEEE VIS, IEEE Transactions on Visualization and Computer Graphics, IEEE Transactions on Knowledge and Data Engineering, Energy Research and Social Science, Wirtschaftsinformatik, BMC Medical Informatics and Decision Making, PLOSone, PeerJ, Political Psychology, International Journal of Health Policy, MDPI Journal Mathematics, MDPI Journal Entropy, MDPI Informatics, MDPI Applied Sciences, MDPI Electronics, MDPI International Journal of Environmental Research and Public Health, Journal Online Information Review, Journal Convergence, Pervasive Health Conference, Mensch und Computer Conference, Human-Computer Interaction International Conference, USAB Conference, South-Chi Conference.

Academic Services

- 2020 **Grant Proposal Review**, *The Dutch Research Council (NWO)*, The Netherlands.
○ Review of large proposal for NWA-ORC 2019
- 2019–2022 **Faculty Tenure-Track Commission**, *RWTH Aachen University*, Elected Member.
○ Determine tenure track evaluation criteria
- 2018 **Advisory**, *BMBF/VDI/VDE Innovation + Technik GmbH*, Stuttgart.
○ Invited Talk: Future Topics in HCI Research
○ Advisory for future BMBF programme concepts
- 2018 **Advisory**, *BMBF/Deutsches Zentrum für Luft und Raumfahrt (DLR) e.V.*, Bonn.
○ Advisory for 9th Framework EU programme concepts
- 2017–present **Teaching-Coordinator**, *Course of Study: Digital Media Communication (M.A.)*, Institute for Linguistics and Communication Science, RWTH Aachen University.
○ Responsible for managing online catalogues, tracking of teaching duties, Exam management, Student troubleshooting
- 2017 **Committee work**, *Professorship Auditive Cognition (W2)*, Faculty of Philosophy, RWTH Aachen University.
○ Elected committee member
- 2016 **Accreditation work**, *Course of Study: Digital Media Communication (M.A.)*, Institute for Linguistics and communication science, RWTH Aachen University.
○ Responsible for the preparation of the module manual and the study plan.

- 2016–present **Coordinator International Office**, *Institute for Linguistics and Communication Science*, RWTH Aachen University.
- Responsible for Erasmus+ exchange students and staff mobility
 - Coordination of all other international student activities
- 2016 **Committee work**, *Professorship Computational methods in Social Sciences (W3)*, Faculty of Philosophy, RWTH Aachen University.
- Elected committee member
- 2016 **Committee work**, *Professorship Philosophy of Science (W3)*, Faculty of Philosophy, RWTH Aachen University.
- Elected deputy committee member

Experience in Academic Teaching

- 2012–2022 Bachelor colloquium (colloquium).
- 2013–2022 Forms of representation in science (ring lecture).
- 2013–2022 Usability, User Diversity, Technology acceptance (seminar).
- 2014–2022 Interdisciplinary Publishing (graduate seminar).
- 2015–2022 Advanced Empirical Methods for social scientists (lecture).
- 2015–2022 Application seminar (seminar).
- 2016–2022 Methods of technical communication (research plenary).
- 2016–2022 Information Visualization and Language (seminar).
- 2018–2022 Doctoral Colloquium (colloquium).
- 2016–2018 Visual Recommender Systems (proseminar).
- 2011–2012 Research internship (internship).
- 2011 Interaction and Communication between Humans and Technology (seminar).
 - 2017 Agent-Based Modelling (seminar).
 - 2009 Webtechnologies (colloquium).

Invited Presentations

- 5/2022 **Simulation von Wirkzusammenhängen am Beispiel der Corona-Virus-Pandemie**, Akademie der Technikwissenschaften (acatech), Klausurtagung des Arbeitskreises Technik und Gesellschaft, TU Darmstadt.
- 3/2021 **Understanding Human-AI Interaction in A Social Media World**, Keynote at Disseminate Conference, Disseminate Conference (NL, virtual).
- 4/2020 **Privacy in Personalized Health Informatics**, Digital Health – From Innovation to Patient Benefit, TU Dresden Else Kröser-Fresenius Center for Digital Health (virtual).
- 2/2020 **Ethics by Design, Akzeptanz und ethische Begleitung in der Entwicklung automatisierter Analysetools**, GPEC 2020, Frankfurt, DE.
- 2/2020 **Menschen und KI - Wer versteht hier wen? (Keynote)**, Data Community Meetup Deutsche Bahn, Erfurt, DE.
- 2/2020 **Human-Algorithm Interaction (Keynote)**, DataVisCamp 2020, Heerlen, NL.
- 4/2019 **Quantitative Evaluation of Information Visualization**, BISS Brightlands Smart Services Campus - Zuyd Hogeschool, Heerlen, NL.
- 2/2019 **User-Centered Design of Information Visualization**, BISS Brightlands Smart Services Campus - Zuyd Hogeschool, Heerlen, NL.
- 2/2019 **Human and Algorithmic Contributions to Misinformation Online - Identifying the Culprit (Keynote)**, Misdoom Conference, Hamburg.
- 11/2018 **Trump, Brexit und die AFD. Verändert Facebook unsere Demokratie?**, VVdst, Aachen, Germany.
- 10/2018 **Requirements for Reproducibility of Geo-Spatial Visualizations (invited panel talk)**, IEEE VIS, Beliv Workshop, Berlin, Germany.
- 3/2018 **E-Coaching for the elderly – Recommender Systems in Health (invited panel talk)**, ICT4AgeingWell Conference, Madeira, Portugal.
- 5/2016 **Connecting Data with Humans**, KU Leuven, Belgium.
- 5/2016 **Empirische Kommunikationswissenschaften**, Bundesfachschaftstagung der Kommunikationswissenschaften, RWTH Aachen University, Germany.

Presentations

- 7/2021 **Fairness and the Need for Regulation of AI in Medicine, Teaching, and Recruiting**, *International Conference for Human-Computer Interaction*, Washington, USA (virtual).
- 6/2020 **Making Reproducible Research Simple Using RMarkdown and the OSF**, *Human-Computer Interaction International*, HCI International (virtual).
- 4/2020 **Evaluation of a Financial Portfolio Visualization using Computer Displays and Mixed Reality Devices with Domain Experts**, *ACM Conference on Human Factors in Computing Systems*, ACM SIGCHI (virtual).
- 9/2019 **Towards an Understanding of Opinion Formation on the Internet - Using a Latent Process Model to Understand the Spread of Information on Social Media**, *European Social Simulation Conference*, Mainz, DE.
- 7/2019 **Trends and Changes in the Field of HCI the Last Decade from the Perspective of HCII Conference**, *Human-Computer Interaction International*, Orlando, USA.
- 7/2019 **Computational Methods in Professional Communication**, *IEEE Professional Communication*, Aachen, Germany.
- 1/2019 **Industry 4.0 and its Future Staff. Matching Millennials Perceptions of a Perfect Job with the Requirements of Digitalization**, *Competitive Manufacturing Conference (COMA)*, Stellenbosch, ZA.
- 1/2019 **Predicting Acceptance of Novel Technology from Social Network Data-An Agent-based Simulation-Approach**, *Competitive Manufacturing Conference (COMA)*, Stellenbosch, ZA.
- 7/2018 **Human-Factors in the Age of Algorithms**, *Human-Computer Interaction International*, Las Vegas, USA.
- 7/2018 **Believability of Fake News**, *Triennial Congress of the international ergonomics association (IEA)*, Florence, Italy.
- 3/2018 **Acceptance of a paper-based digital diabetes diary**, *ICT4AgeingWell Conference*, Madeira, Portugal.
- 7/2017 **Measuring Insight Into Multi-Dimensional Data from a Combination of a Scatterplot Matrix and a Hyperslice Visualization**, *Human-Computer Interaction International 2017*, Vancouver, Canada.

- 7/2017 **Industrie 4.0 and an Aging Workforce – A Discussion from a Psychological and a Managerial Perspective**, *Human-Computer Interaction International 2017*, Vancouver, Canada.
- 10/2016 **HCI for Recommender Systems, the Past, the Present and the Future**, *ACM RecSys 2016*, MIT, Boston, USA.
- 9/2016 **Human Factors in Information Visualization and Decision Support Systems**, *Mensch und Computer 2016*, RWTH Aachen University, Germany.
- 7/2016 **Visualizing Opportunities of Collaboration in Large Research Organizations**, *Human-Computer Interaction International 2016*, Toronto, Canada.
- 7/2016 **Using Liferay as an Interdisciplinary Scientific Collaboration Portal**, *Human-Computer Interaction International 2016*, Toronto, Canada.
- 7/2016 **Strategic Knowledge Management for Interdisciplinary Teams. Overcoming Barriers of Interdisciplinary Work via an Online Portal Approach**, *Human-Computer Interaction International 2016*, Toronto, Canada.
- 1/2016 **Preparing Production Systems for the Internet of Things**, *International Conference on Competitive Manufacturing (COMA)*, Stellenbosch, South Africa.
- 8/2015 **Reducing Complexity with Simplicity**, *International Ergonomics Association Triennial Summit*, Melbourne, Australia.
- 7/2015 **What should I read next?**, *Human-Computer Interaction International Conference*, Los Angeles, USA.
- 7/2015 **What do my colleagues know?**, *Human-Computer Interaction International Conference*, Los Angeles, USA.
- 7/2015 **Older users rejection of mobile health apps**, *Human-Computer Interaction International Conference*, Los Angeles, USA.
- 7/2015 **On the visual design of enterprise resource systems**, *Applied Human Factors and Ergonomics 2015*, Las Vegas, USA.
- 7/2015 **Orchestrating collaboration - Visual collaboration suggestions in large research clusters**, *Applied Human Factors and Ergonomics 2015*, Las Vegas, USA.
- 7/2015 **User-centered design of business communities. The influence of user diversity on motivation to use**, *Applied Human Factors and Ergonomics 2015*, Las Vegas, USA.

- 7/2014 **Reasons for using social networks professionally**, *Human Computer Interaction International 2014*, Crete, Greece.
- 7/2014 **Enhancing interdisciplinary collaboration in large research clusters**, *Human Computer Interaction International 2014*, Crete, Greece.
- 10/2013 **Scientific Cooperation Engineering**, *10th International Conference on Webometrics, Informetrics, and Scientometrics*, Illmenau, Germany.
- 9/2013 **Graph entropy measures in publication network data**, *CD-ARES 2013*, Regensburg, Germany.
- 6/2013 **Information disclosure in social networks**, *SouthChi-Conference 2013*, Maribor, Slovenia.
 - Best presentation award
- 6/2013 **Netiquette for the work environment**, *SouthChi-Conference 2013*, Maribor, Slovenia.
- 2/2012 **Social Networking Sites in the work environment**, *International Ergonomics Association Triennial Summit*, Recife, Brazil.
- 7/2010 **Mental Models of Menu Structures in Diabetes Assistants**, *12th ICCHP-International Conference on Computers helping people with special needs*, Vienna, Austria.
- 6/2010 **Task-Performance in mobile and ambient interfaces for an electronic diabetes assistant**, *iSociety 2010*, London, United Kingdom.
- 7/2009 **Effects of Aging and Domain Knowledge on Usability in a Diabetes Small Screen Device**, *USAB 2009*, Linz, Austria.

Academic Software

- 2021 **Author of the 'seminrstudio' package**, <https://github.com/sem-in-r/seminrstudio>.
 - Interactive Addins for the SEMinR package in RStudio
- 2020 **Author of 'SEMinR' package**, <https://github.com/sem-in-r/seminr>.
 - An easy to use domain-specific-language for structural equation modelling (PLS-SEM & CB-SEM)
- 2020 **Author of 'gghilbertstrings' package**, <https://github.com/Sumidu/gghilbertstrings>.
 - A package for visualization of linear data in 2D using Hilbert curves (ggplot-Extension).
- 2019 **Author of 'rmd_formats' package**, https://github.com/statisticsforsocialscience/rmd_templates.
 - RMarkdown-Templates for LNCS.