

KATHARINA REINECKE CURRICULUM VITAE

Assistant Professor
Computer Science & Engineering
University of Washington

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RESEARCH INTERESTS

I conduct large-scale online experiments to analyze and explain cultural differences in humans' perception, behavior, and preferences. Using this knowledge, I build systems that automatically adapt their user interfaces to people from varying cultures as defined by their geographic and demographic backgrounds.

Key Research Areas: Human-Computer Interaction, Intelligent User Interfaces, Cross-Cultural Experimentation

EMPLOYMENT

Assistant Professor *August 2015 – now*
Computer Science and Engineering
University of Washington

Assistant Professor *Jan 2014 – July 2015*
School of Information (secondary appointment in Computer Science)
University of Michigan

EDUCATION

Postdoctoral Fellow *Nov 2010 – Nov 2013*
Intelligent and Interactive Systems Group, School of Engineering and Applied Sciences
Harvard University, USA (with Prof. Krzysztof Gajos)

Ph.D., Computer Science (*summa cum laude*) *May 2010*
Department of Informatics, University of Zurich, Switzerland
Advisor: Prof. Abraham Bernstein
External Advisor: Anthony Jameson, PhD (German Research Center for Artificial Intelligence)
Thesis title: "Culturally Adaptive User Interfaces"

Diploma in Computer Science (*high distinction, comparable to M.Sc.*) *March 2006*
Computer Science Department, University of Koblenz, Germany
Majored in Computational Visualistics Advisors: Prof. Jürgen Krause, Prof. Dieter König
Thesis title: "A Learning Platform for Agricultural Advisers in Rwanda"

HONORS & AWARDS

Best Paper Honorable Mention Award
International Conference on Computer Supported Cooperative Work (CSCW), recognizing [C15], 2015.

European Research Paper of the Year 2014
Awarded by the European network of 4300 CIOs at CIO city 2014 (www.ciocity.com), recognizing [J2], 2014.

Best Paper Honorable Mention Award
International Conference on Human Factors in Computing Systems (CHI), recognizing [C12], 2013.

Best Paper Award

International Conference on Human Factors in Computing Systems (CHI), recognizing [C11], 2013.

Mercator Prize

First prize for research excellence awarded by the Mercator Foundation Switzerland, recognizing [T2], 2011.

Finalist for the Best Dissertation Award

Joint award of the German Chapter of the ACM and the German, Swiss, and Austrian Associations for Computer Science, recognizing [T2], 2010.

Best Paper Award

International Conference on User Modeling, Adaptation, and Personalization, recognizing [C6], 2009.

Swiss Computer Science Challenge Award

First prize for the approach to "Cultural Adaptivity for User Interfaces" awarded by the Hasler Foundation and Empa/ETH Zurich, 2008.

Best Student Award

International Semantic Web Conference, Doctoral Consortium, recognizing [D1], 2007

FELLOWSHIPS & GRANTS

Google Faculty Research Award

Granted for the project "Predicting Visual Appeal and User Engagement", \$81,201, 2014.

Advanced Research Fellowship

Swiss National Science Foundation, \$47,000, 2013-2014.

Mind/Brain/Behavior Faculty Awards

Harvard University, research grant for the LabintheWild project co-authored with Prof. Gajos (Computer Science Department) and Prof. Nakayama (Department of Psychology), 2012-2013.

Research Fellowship

Swiss National Science Foundation, ~\$90,000, 2011-2013.

Research Fellowship

Hasler Foundation, co-authored with Prof. Bernstein, ~\$60,000, 2010-2011.

Research Fellowship

Hasler Foundation, co-authored with Prof. Bernstein, ~\$111,000, 2008-2010.

Research Fellowship

University of Zurich, ~\$59'000, 2008-2009.

Research Scholarship

Granted for six months research in Butare/Kigali, Rwanda by the German Academic Exchange Service, 2005.

PUBLICATIONS

Refereed Journal Articles

[J3] A. Jameson, B. Berendt, S. Gabrielli, C. Gena, F. Cena, F. Venero, & **K. Reinecke**, Choice architecture for human-computer interaction. Foundations and Trends in Human-Computer Interaction, 7(1-2), pages 1-235, 2014.

[J2] **K. Reinecke**, A. Bernstein, "Knowing What a User Likes – a Design Science Approach to Interfaces that Automatically Adapt to Culture", MIS Quarterly, 2013.

[J1] **K. Reinecke**, A. Bernstein, "Improving Performance, Perceived Usability, and Aesthetics with Culturally Adaptive User Interfaces", ACM Transactions on Computer-Human Interaction (ToCHI), 18(2), 2011.

Refereed Conference Papers

- [C16] L. Harrison, Remco Chang, **Katharina Reinecke**, “Infographic Aesthetics: The First Impression Counts”, Human Factors in Computing Systems (CHI), 2015. (Acceptance: 18%)
- [C15] **K. Reinecke**, K. Z. Gajos “LabintheWild: Conducting Large-Scale Online Experiments With Uncompensated Samples”, Computer Supported Cooperative Work (CSCW), 2015, 15 pages. (Acceptance: 28.3% after Revise & Resubmit process; **HONORABLE MENTION – TOP 5%**)
- [C14] **K. Reinecke**, K. Z. Gajos “Quantifying Visual Preferences Around the World”, Human Factors in Computing Systems (CHI), 2014. (Acceptance: 22.8%)
- [C13] P. Guo, **K. Reinecke**, “Demographic Differences in How Students Navigate Through MOOCs”, ACM Conference on Learning at Scale, 2014. (Acceptance: 35%)
- [C12] **K. Reinecke**, T. Yeh, L. Miratrix, Y. Zhao, M. Rahmatri, J. Liu, K. Z. Gajos, “Predicting Users' First Impressions of Website Aesthetics With a Quantification of Perceived Visual Complexity and Colorfulness”, Human Factors in Computing Systems (CHI), 2013. (Acceptance: 20%; **HONORABLE MENTION – TOP 5%**)
- [C11] D. Flatla, **K. Reinecke**, C. Gutwin, K. Z. Gajos, “Preserving Subjective Responses to Website Color Schemes Through Automatic Recoloring”, Human Factors in Computing Systems (CHI), 2013. (Acceptance: 20%; **BEST PAPER AWARD – TOP 1%**)
- [C10] S. Komarov, **K. Reinecke**, K. Z. Gajos, “Crowdsourcing Performance Evaluations”, Human Factors in Computing Systems (CHI), 2013. (Acceptance: 20%)
- [C9] **K. Reinecke**, M. K. Nguyen, A. Bernstein, M. Naef, K. Z. Gajos, “Doodle Around the World: Online Scheduling Behavior Reflects Cultural Differences in Time Perception and Group Decision-Making”, Computer Supported Cooperative Work (CSCW), 2013.
- [C8] K. Z. Gajos, **K. Reinecke**, C. Herrmann “Accurate Measurements of Pointing Performance from In Situ Observations”, Human Factors in Computing Systems (CHI), 2012. (Acceptance: 23%)
- [C7] A. Jameson, S. Gabrielli, P. O. Kristensson, **K. Reinecke**, F. Cena, C. Gena, and F. Venero, " How Can We Support Users' Preferential Choice?", Human Factors in Computing Systems (CHI), alt.chi, 2011.
- [C6] **K. Reinecke**, A. Bernstein, “Tell me Where You've Lived and I'll Tell You What You Like: Adapting Interfaces to Cultural Preferences”, User Modeling, Adaptation, and Personalization (UMAP), 2009. (Acceptance: 26.1%; **BEST PAPER AWARD**)
- [C5] **K. Reinecke**, A. Bernstein, S. Hauske, “To Make or to Buy? Sourcing Decisions at Zurich Cantonal Bank”, International Conference on Information Systems (ICIS), 2008. (Acceptance: 20%)
- [C4] **K. Reinecke**, A. Bernstein, "Predicting User Interface Preferences of Culturally Ambiguous Users", Human Factors in Computing Systems (CHI), Extended Abstracts, 2008.
- [C3] **K. Reinecke**, A. Bernstein, "Culturally Adaptive Software: Moving Beyond Internationalization", HCI International 2007, Springer.
- [C2] H. Topcuoglu, **K. Reinecke**, S. Hauske, A. Bernstein, "CaseML - Enabling Multifaceted Learning Scenarios with a Flexible Markup Language for Business Case Studies", EdMedia, 2007.
- [C1] **K. Reinecke**, H. Topcuoglu, S. Hauske, A. Bernstein, "Flexibilisierung der Lehr- und Lernszenarien von Business-Fallstudien durch CaseML", DeLFI 2007, Lecture Notes in Informatics.

Other Refereed Publications and Workshops

- [W3] C. Sturm, A. Oh, S. Linxen, J. Abdelnour-Nocera, S. Dray, **K. Reinecke**, “How WEIRD is HCI? Extending HCI Principles to other Countries and Cultures”, Workshop to be organized for Human Factors in Computing Systems (CHI), 2015.
- [W2] P. Hinds, **K. Reinecke**, “Advancing Methodologies for Cross-Cultural Studies of Collaborative Systems”, Workshop organized for Computer Supported Cooperative Work and Social Computing (CSCW), 2014.
- [W1] **K. Reinecke**, D. Flatla, E. T. Solovey, C. Gutwin, K. Z. Gajos, J. Heer, “Many People, Many Eyes:

Aggregating Influences of Visual Perception on User Interface Design”, Workshop organized for Human Factors in Computing Systems (CHI), 2013.

WP2] **K. Reinecke**, K. Z. Gajos, "One size fits many Westerners: How Cultural Abilities Challenge UI Design", Workshop on Dynamic Accessibility: Accommodating Differences in Ability and Situation, CHI, 2011.

[D1] **K. Reinecke**, A. Bernstein, P. Minder, "MOCCA - A System That Learns and Recommends Visual Preferences Based on Cultural Similarity", International Conference on Intelligent User Interfaces (IUI), Demo, 2011.

[B1] **K. Reinecke**, S. Schenkel, A. Bernstein, "Modelling a User's Culture", In: The Handbook of Research in Culturally-Aware Information Technology: Perspectives and Models ", IGI Global, 2010.

[DC2] **K. Reinecke**, "Culturally Adaptive User Interfaces", Doctoral Consortium of the International Conference of Information Systems (ICIS). Phoenix, USA, 2009.

[DC1] **K. Reinecke**, "Cultural Adaptivity for the Semantic Web", Doctoral Consortium at the 6th International Semantic Web Conference, 2007; Lecture Notes in Computer Science, Springer. **BEST STUDENT AWARD**

[WP1] **K. Reinecke**, G. Reif, A. Bernstein, "Cultural User Modeling With CUMO: An Approach to Overcome the Personalization Bootstrapping Problem", Workshop on Cultural Heritage Systems in the Semantic Web, 2007; Lecture Notes in Computer Science.

Other Articles

[J2] **K. Reinecke**, "Automatic Adaptation of User Interfaces to Cultural Preferences", it - Information Technology, 54(2), 2012.

[B2] **K. Reinecke**, "Kulturell-Adaptive Benutzeroberflaechen", Chapter in Distinguished Dissertations in Computer Science 2010 ("Ausgezeichnete Informatikdissertationen"), GI and the German Chapter of the ACM, 2011.

Theses

[T2] **K. Reinecke**, "Culturally Adaptive User Interfaces", PhD thesis, University of Zurich, 2010.

[T1] **K. Reinecke**, "A Learning Platform for the Education of Agricultural Advisors in Rwanda", Diploma Thesis, Computer Science Department, University of Koblenz, 2005.

TEACHING EXPERIENCE

Graduate-Level Instructor

SI 710 HCI Research at Scale (Winter 2015), University of Michigan, *January - May 2015*

SI 543 Programming I: Java for Android (Fall 2014), University of Michigan, *September - December 2014*

SI 582 Interaction Design (Winter 2014), University of Michigan, *January - May 2014*

Citizen School Teacher

Dever-McCormack Middle School, Dorchester, MA, USA

Curriculum development and teaching of a class on Website development as part of CodeEd (codeed.org)

January - May 2012

Guest Lecturer

In the undergraduate class "Design of Usable Interactive Systems" (CS 179), Harvard School of Engineering and Applied Sciences, "Designing Across Cultures", Cambridge, MA, USA, April 2011 and April 2012

Visiting Lecturer

Computer Science Department, National University of Rwanda, Butare, Rwanda

Taught a course on the integration of Human-Computer Interaction into the Software Engineering Lifecycle, attended by 57 master's students.

May - June 2009

Teaching Assistant

ETH Zurich and University of Zurich, Switzerland

Executive MBA

Included the preparation of teaching material and organization of courses.

Winter term 08/09

Teaching Assistant

Business Administration and Economics Faculty, University of Zurich, Switzerland

Course “Informatics for Business Administration and Economics Students” (~800 students).

Included organisation and supervision of 12 tutors and 14 teaching assistants.

Winter term 07/08 and 08/09

Teaching Assistant

Business Administration and Economics Faculty, University of Zurich, Switzerland

Course “Informatics for Business Administration and Economics Students” (~600 students).

Organisation and supervision of 9 tutors and teaching assistants.

Winter term 06/07

Visiting Lecturer

Computer Science Department, National University of Rwanda, Butare, Rwanda

Taught “Introduction to programming in Java”, 18 2nd-year students.

March – May 2005

MENTORING EXPERIENCE

Individual People Management/Supervision

University of Michigan, School of Information, Ann Arbor, MI, USA

- Carol Moser, 1st year PhD student co-advised with Sarita Yardi Schoenebeck, September 2014-today
- Yan Chen, 1st year PhD student, September 2014-today
- Ryan Burton, 1st year PhD student co-advised with Eytan Adar, September 2014-today
- Trevor Croxson, full-time research assistant, March 2014-today
- Tiffany Liu, undergraduate research assistant, May 2014-December 2014

Harvard School of Engineering and Applied Sciences, Cambridge, MA, USA

- Jenny Liu, undergraduate research assistant, June 2012 – February 2013
- Yuechen Zhao, undergraduate research assistant, June 2012 – January 2013 (now at Google)
- Nancy Chen, undergraduate research assistant, September 2011 – May 2012 (now at Google)

University of Zurich, Computer Science Department, Switzerland

- Patrick Minder, research assistant, July 2009 – May 2010
- Andreas Bossard, research assistant, June – December 2008

Thesis Advising

Computer Science Department, University of Zurich, Switzerland

Master’s theses:

- Raphael Ochsenbein, “The Influence of Online Trust Across Cultural Borders”, 2011
- Anthony Lymer, “A Recommender System for Cultural Preferences”, 2009
- Basil Wirz, “Combining AJAX with Semantics: Tracking the user’s interaction”, 2008
- Matthias Gally, “A Framework for Culturally Adaptive Web Applications”, 2008
- Andreas Bossard, “Ontology-Based Cultural Personalization in Mobile Applications”, 2008
- Matthias Spinner, “Combining AJAX with Semantics: Development of Culturally Adaptive UIs”, 2008
- Roman Zweifel, “Developing a Semantically Annotated Web Portal for Case Studies”, 2007

Bachelor's theses:

- David Eberle, "The Economic Benefits of Localization", 2009
- Christian Kündig, "A User Model Editor for Ontology-based Cultural Personalization", 2008
- Anthony Lymer, "Development of a Generating Tool for Adaptive Entrance Tests", 2007

Mentor for joint Computer Science/Psychology Research Summer Program

Computer Science Department and Department of Psychology, Harvard University

Supervision of eight undergraduate students as part of a joint project between both departments.

June - August 2012 and June - August 2013

Mentor for the Research Science Institute

Massachusetts Institute of Technology, Summer program of the Center for Excellence in Education, supervised an Iranian high school student.

June - July 2011

Master Project Supervisor

Computer Science Department, University of Zurich, Switzerland

Project "Recommending Preferences Based on Cultural Similarity", supervised four graduate students.

June - October 2010

PROFESSIONAL ACTIVITIES

Invited Talks

- University of Washington, Computer Science Department, "Using Large-Scale Online Experiments to Design User Interfaces for People Around the World", Seattle, WA, April 2015
- Boston University, Computer Science Department, "Using Large-Scale Online Experiments to Design User Interfaces for People Around the World", Boston, MA, April 2015
- University of California San Diego, Cognitive Science Department, "Using Large-Scale Online Experiments to Design User Interfaces for People Around the World", San Diego, CA, March 2015
- University of Colorado Boulder, Computer Science Department, "Using Large-Scale Online Experiments to Design User Interfaces for People Around the World", Boulder, CO, February 2015
- New York University, Stern School of Business, "Using Large-Scale Online Experiments to Design User Interfaces for People Around the World", New York, NY, February 2015
- Carnegie Mellon University, School of Computer Science, "LabintheWild: Large-Scale, Uncompensated Online Experiments", Crowdsourcing Lunch Seminar Series, Pittsburgh, PA, October 2014
- University of Toronto, Knowledge Media Design Institute (KMDI), "LabintheWild: Conducting Large-Scale, Uncompensated Online Experiments Around the World", Host: Mark Chignell, Toronto, ON, Canada, October 2014
- German Institute of Artificial Intelligence (DFKI), "LabintheWild: Conducting Large-Scale, Uncompensated Online Experiments Around the World", Host: Antonio Krüger, Saarbrücken, Germany, September 2014
- Stanford University, Management Science and Engineering, "Making Science Less Weird", Host: Pamela Hinds, Palo Alto, CA, USA, May 2014
- SXSWedu'14, "Making Science Less Weird", Austin, TX, USA, March 2014
- University of Toronto, School of Information, "A Design Science Approach to Interfaces that Automatically Adapt to Culture", Host: Christopher Becker, Toronto, ON, Canada, December 2013
- University of Michigan, School of Information, "Adapting User Interfaces to Cultural Differences in Perception and Preferences", Hosts: Mark Newman and Stephanie Teasley, Ann Arbor, MI, USA, March 2013
- University of Rochester, Department of Computer Science, "Adapting User Interfaces to Cultural Differences in Perception and Preferences", Host: Jeffrey Bigham, Rochester, NY, USA, February 2013
- University of Maryland Baltimore County, Department of Information Systems, "Adapting User Interfaces to Cultural Differences in Perception and Preferences", Host: Aryya Gangopadhyay, Baltimore, MD, USA, February 2013

- HEC Paris, School of Management, “Adapting User Interfaces to Cultural Differences in Perception and Preferences”, Host: Shirish Srivastava, Jouy-en-Josas, France, February 2013
- Aarhus University, School Business and Social Sciences, “Adapting User Interfaces to Cultural Differences in Perception and Preferences”, Host: Andrea Carugati, Aarhus, Denmark, February 2013
- University of Edinburgh, School of Informatics, “Adapting User Interfaces to Cultural Differences in Perception and Preferences”, Edinburgh, Scotland, UK, January 2013
- University of Kent, School of Engineering and Digital Arts, “Adapting User Interfaces to Cultural Differences in Perception and Preferences”, Canterbury, UK, January 2013
- University of Bern, Institute of Information Systems, “Adapting User Interfaces to Cultural Differences in Perception and Preferences”, Bern, Switzerland, January 2013
- University of Saskatchewan, Interaction Lab, “Does One Size Fit All? How Cultural Background Influences How We Perceive and Interact With User Interfaces”, Host: Carl Gutwin, Saskatoon, Canada, Nov. 2012
- Adobe Research, “Does One Size Fit All? Adapting User Interfaces to Cultural Abilities”, Host: Joel Brandt, San Francisco, CA, USA, August 2011
- IBM Watson Research Center, “Tell me where you’ve lived, and I’ll tell you what you like.” Host: Lawrence Bergman, Hawthorne, NY, USA, August 2010
- IBM Watson Research Center, “Culturally Adaptive User Interfaces.” Host: David Millen, Cambridge, MA, USA, August 2010
- General Motors Research, “Incorporating Cultural Adaptivity into Navigation Systems”, Host: Omer Tsimhoni and Ute Winter, Israel, July 2010
- Credit Suisse Bank, Information Technology Department, “Culturally Adaptive User Interfaces”, Host: Robert Robinson, Zurich, Switzerland, August 2009
- Informatica ’08, “Culture and IT”, Basel, Switzerland, 2008

Program Committee

- Human Factors in Computing Systems (CHI), 2014, 2015
- Human Factors in Computing Systems (CHI) Workshops, 2015
- User Modeling, Adaptation, and Personalization (UMAP), 2010, 2014, 2015
- User Modeling, Adaptation, and Personalization (UMAP) late-breaking results program committee, 2015
- User Modeling, Adaptation, and Personalization (UMAP) posters and demos program committee, 2015
- Workshop on Personalised Multilingual Web Access at World Wide Web (WWW), 2014, 2015
- Designing Interactive Systems (DIS), 2014
- 29th ACM Symposium On Applied Computing (SAC), 2014
- Workshop on Culturally-Aware Tutoring Systems at Artificial Intelligence in Education (AIED), 2013
- Intelligent User Interfaces (IUI), 2011
- Doctoral Consortium at User Modeling, Adaptation, and Personalization (UMAP), 2010
- Workshop on Culturally-Aware Tutoring Systems at Intelligent Tutoring Systems (ITS), 2010
- Workshop on Culturally-Aware Tutoring Systems at Artificial Intelligence in Education (AIED), 2009

Conference Reviewing

- Creativity and Cognition, 2015
- Computer-Supported Collaborative Work (CSCW), 2011, 2012, 2013, 2014, 2015
- Intelligent User Interfaces (IUI), 2011, 2012, 2013
- Human Factors in Computing Systems (CHI), 2011, 2012, 2013
- Engineering Interactive Computing Systems (EICS), 2013
- User Interface Software and Technology (UIST), 2011, 2013
- Human-Computer Interaction with Mobile Devices and Services (Mobile HCI), 2011
- User Modeling, Adaptation, and Personalization (UMAP), 2010
- World Wide Web Conference (WWW), 2009
- International Semantic Web Conference (ISWC), 2008, 2009
- European Semantic Web Conference (ESWC), 2007, 2008, 2009

Journal Reviewing

- Associate Editor for the International Journal of Human-Computer Studies (IJHCS), 2015
- Transactions in Human-Computer Interaction (ToCHI), 2014, 2015
- International Journal of Human-Computer Studies (IJHCS), 2007, 2011, 2012, 2013, 2014, 2015
- Interacting with Computers, 2014, 2015
- Information Visualization, 2013
- MIS Quarterly, 2011
- International Journal of Social Robotics, 2010
- User Modeling and User-Adapted Interaction (UMUAI), 2009

Organizational Work

Organizer, BostonCHI Labs research consortium, October 2010 – November 2013