Nicolai Marquardt | CURRICULUM VITAE

UNIVERSITY COLLEGE LONDON,
SENIOR LECTURER IN PHYSICAL COMPUTING

Department of Computer Science,
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SUMMARY

- Research in human-computer interaction, physical computing, cross-device interaction, ubiquitous computing, tangible interfaces, sensor-based systems and gestural interaction
- 47 peer-reviewed conference papers and journal articles (e.g., ACM CHI, UIST, ITS, DIS, TEI, IEEE COMPUTER, Biomedical Optics journal), 2 books, 1 book chapter, 1 patent and 31 other publications (demos, posters, SIG panels, workshops, tutorials).
- Best paper award (ITS), 2 honourable mention awards (CHI) and ITS best demo award.
- Top most-cited article of ACM ISS conference since 2009: *Proxemic interaction: designing for a proximity and orientation-aware environment*, 267 citations
- 2068 citations, h-index of 21 and i10-index of 29
- Conference Co-Chair for ISS in 2016, academic service in 12 Conference Organisation committees and 16 Program Committees
- Supervision and teaching experience: co-supervision and mentoring of 6 PhD students and 31 BSc, MSc, and MEng students. Instructor and lecturer in 6 modules/courses, 16 invited talks and keynotes, and 18 guest lectures and tutorials
- Co-author of two textbooks:
  Sketching User Experiences: The Workbook (Morgan Kaufmann 2011),
  Proxemic Interactions: From Theory to Practice (Morgan & Claypool 2015)

EMPLOYMENT AND RESEARCH EXPERIENCE

Since 08/2016 **Senior Lecturer in Physical Computing, University College London**
(United Kingdom)
Department of Computer Science, UCL Interaction Centre
Research in human-computer interaction, physical computing, ubiquitous computing, proxemic interactions, and gestural interaction with large surfaces. Teaching courses in Interaction Design, Physical Computing, Prototyping and Computer Science.

08/2013 – 08/2016 **Lecturer in Physical Computing, University College London**
(United Kingdom)
Department of Computer Science, UCL Interaction Centre

09/2008 – 08/2013 **PhD Candidate and Research Assistant at the GroupLab, University of Calgary** (Canada)
Research, development, and evaluation in the areas of human-computer interaction, ubiquitous computing, and proxemic interactions (funded by AITF PhD scholarship)
Supervisor: Saul Greenberg

10/2011 – 01/2012 **Research internship at Microsoft Research Redmond** (USA)
Cross-device interaction via micro-mobility and F-formations.
Supervisor: Ken Hinckley

06/2008 – 08/2008 **Research internship at Microsoft Research Cambridge** (United Kingdom)
Rethinking RFID: visible and controllable RFID tags.
Supervisor: Alex Taylor, Nicolas Villar

07/2006 – 11/2006 **Research internship at Microsoft Research Cambridge** (United Kingdom)
Remote media spaces and tangible digital information.
Supervisor: Abigail Sellen, Richard Banks

09/2005 – 02/2006 **Visiting research student at the GroupLab, University of Calgary** (Canada)
Prototyping toolkit for distributed physical user interfaces.
Supervisor: Saul Greenberg

EDUCATION

05/2013 **PhD in Computer Science, University of Calgary** (Canada)
Department of Computer Science, Interactions Lab, *GPA 4.0/4.0*
Thesis: *Proxemic Interactions in Ubiquitous Computing Ecologies.* Supervisor: Saul Greenberg

04/2008 **Diplom (MSc equivalent), Media Systems, Bauhaus-University Weimar** (Germany)
Graduated with distinction. GPA 3.9/4.0, Senior GPA 4.0/4.0.
Thesis: *Distributed Physical Interfaces with Shared Phidgets.* Supervisor: Tom Gross

GRANTS

2015 - 2018 **Microsoft Research and EPSRC iCASE Studentship.** "Ad-hoc Cross-Device Interactions Facilitating Small-Group Collaborative Explorations and Curation of Historic Documents"
Funding amount: £69,794.
External and internal funding (co-funding from Microsoft and UCL/EPSRC)
Role: PI (and co-supervisor of PhD student Frederik Brudy)

2015 - 2018 **BBC Research & Development and EPSRC iCASE Studentship.** "Making the Future: putting people at the centre of the Internet of Things"
Funding amount: £92,694.
External and internal funding (co-funding from BBC and UCL/EPSRC)
Role: Co-PI (and co-supervisor to PhD student Susan Lechelt)

2015 - 2017 **UCL BEAMS, EPSRC Doctoral Prize of Aisling Ann O'Kane.** "Empowering Adults to Create Bespoke T1 Diabetes Self-Care Technology Through Community-Based Knowledge Transfer and DIY Maker Culture"
Funding amount: £109,439. EP/M507970/1.
Internal funding.
Role: Co-PI (line manager of Aisling Ann O'Kane)

2015 - 2017 **UCL Department of Computer Science and BBC funding for Senior Research Associate position in Physical Computing.**
Funding amount: approximately £112,512.
Internal funding. Role: Co-PI (line manager of Dr Venus Shum)

2010 – 2013 **PhD Scholarship: Alberta Innovates Technology Futures (AITF),** Canada, Computer Science Graduate Student Scholarship
Funding amount: £68,400 (£22,800 p.a. for three years). External. Role: PI

2008 – 2010 **PhD Scholarship: iCORE PhD Scholarship in ICT**, Alberta Informatics Circle of Research Excellence, Canada
Funding amount: £45,600 (£22,800 p.a. for two years). External. Role: PI

SMALLER GRANTS AND TRAVEL FUNDING

2015-2018 INRIA Lille-Nord Europe Center Travel Funding: Understanding divided attention in the cross-device ecology. Funding for travel and workshop organisation.
Funding amount: £8,560. External (with Sylvain Malacria, INRIA)

2015-2016 Strategic Research Fund, Department of Computer Science: CodeMe - Towards Creative Coding of IoT, Funding amount: £3,500. Internal.

2015 Invitation and travel funding for Microsoft Research Faculty Summit, Paris, France
Funding amount: approximately £1,500. External.

2015 Travel funding grant by Jacobs Foundation to attend conference "eKIDS: technologies for research and invention with children and youth" at Schloss Marbach
Funding amount: approximately £1,400. External.

2014 Strategic Research Fund, Department of Computer Science: CodeMe project (co-PI with Yvonne Rogers), Funding amount: £3,500. Internal.

2014 IoE/UCL Strategic Partnership Ideas Incubator Fund: New forms of Portfolio Assessment: Peerwise+, Funding amount: £2,000. Internal.

2014 Travel funding for teaching at UbiHealth Winter School, Mexico
Funding amount: £1,800. Internal.

2013 Invitation and travel funding to attend The Rank Prize Funds Symposium on on Natural User Interfaces, Augmented Reality and Beyond: Challenges at the Intersection of HCI and Computer Vision
Invitation by: Sharam Ihzadi and Andrew Blake (Microsoft Research)
Funding amount: approximately £1,100. External.

2009 – 2011 Department Research Award, Computer Science, University of Calgary
Funding amount: £2,800 p.a., £8,400 total (declined due to funding cap).

2005 – 2007 Graduate scholarship of the German National Academic Foundation.
Funding amount: £5,724 p.a., £11,448 in total (declined due to funding cap).

2005 – 2006 Travel scholarship of the German Academic Exchange Service (DAAD) for research visit at the University of Calgary, Funding amount: £2,970

2005 – 2006 Travel scholarship of the German National Academic Foundation for research visit at the University of Calgary, Funding amount: £2,478 (declined due to funding cap)

AWARDS AND HONORS

2016 ACM CHI Honorable Mention Award,
"Physikit: Data Engagement Through Physical Ambient Visualizations in the Home.", top 5% of papers

2015 ACM CHI Honorable Mention Award,
"As Light as your Footsteps: Altering Walking Sounds to Change Perceived Body Weight, Emotional State and Gait", top 5% of papers

2014 ACM ITS Best Demo Award,
"Demonstrating HuddleLamp: Spatially-Aware Mobile Displays for Ad-hoc Around-the-Table Collaboration"

2010 ACM ITS Best Paper Award,
"Proxemic Interaction: Designing for a Proximity and Orientation-Aware Environment"

2010 Award for quality in graduate teaching (TA) at University of Calgary Computer Science Department, TA in course CPSC 581 (Human-Computer Interaction II)

RESEARCH INTERESTS AND THEMES

- **Tangible, haptic, and physical user interfaces**
  see publications C.29, C.26, C.11, C.5, C.3, C.2, J.1, EA.2, T.1
- **Design of physical computing prototyping toolkits**
  see publications C.25, C.21, C.19, C.16, C.11, C.10, C.9, C.2
- **Proxemics applied to interactions in ubiquitous computing ecologies**
  see publications B.2, C.24, C.22, C.19, C.17, C.15, C.14, C.9, C.6, J.3, A.1, EA.6, EA.4
- **Novel interaction techniques for digital surfaces**
  smartwatches, mobile phones and tablets:
  see publications C.28, C.22, C.21, C.15, C.14, C.13, C.12, C.8
  interactive tabletops and large wall displays:
  see publications C.17, C.14, C.11, C.10, C.9, C.8, C.7, C.6, C.3
- **Visualizing and controlling sensor/actuator networks**
  see publications C.26, C.5, C.4, C.1, J.2, J.1, EA.1, W.1
- **Sketching user experiences and design strategies**
  see publications B.1, A.2, W.2, EA.15, EA.14, EA.9, EA.7

PUBLICATIONS

CONFERENCE PUBLICATIONS

[C.37] Nicolai Marquardt, Frederik Brudy, Can Liu, Benedikt Bengler, Christian Holz (2018). SurfaceConstellations: A Modular Hardware Platform for Ad-Hoc Reconfigurable Cross-Device Workspaces. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18). ACM, New York, NY, USA.

[C.36] Zuzanna Lechelt, Yvonne Rogers, Nicola Yuill, Lena Nagl, Grazia Ragone, Nicolai Marquardt (2018). Inclusive Computing in Special Needs Classrooms: Designing for All. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18). ACM, New York, NY, USA.

[C.35] Youngjun Cho, Nadia Bianchi-Berthouze, Nicolai Marquardt, Simon J. Julier (2018). Deep Thermal Imaging: Proximate Material Type Recognition in the Wild through Deep Learning of Spatial Surface Temperature Patterns. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18). ACM, New York, NY, USA.

[C.34] Frederik Brudy, Joshua Kevin Budiman, Steven Houben, Nicolai Marquardt (2018). Investigating Practices When Using an Overview Device in Collaborative Multi-Surface Trip-Planning. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18). ACM, New York, NY, USA.

[C.33] David Ledo, Steven Houben, Jo Vermeulen, Nicolai Marquardt, Lora Oehlberg, Saul Greenberg (2018). Evaluation Strategies for HCI Toolkit Research. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (CHI '18). ACM, New York, NY, USA.

[C.32] Geraint Rhys Sethu-Jones, Yvonne Rogers, Nicolai Marquardt (2018). Data in the garden: a framework for exploring provocative prototypes as part of research in the wild. In *Proceedings of the 29th Australian Conference on Computer-Human Interaction*, ACM.

[C.31] Isabel Benavente Rodriguez, Nicolai Marquardt (2017). Gesture Elicitation Study on How to Opt-in & Opt-out from Interactions with Public Displays. In *Proceedings of the 2017 ACM on Interactive Surfaces and Spaces* (ISS '17). ACM.

[C.30] Chi-Jui Wu, Steven Houben, and Nicolai Marquardt (2017). EagleSense: Tracking People and Devices in Interactive Spaces using Real-Time Top-View Depth-Sensing. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (CHI '17). ACM, New York, NY, USA, 3929-3942.

[C.29] Cho, Y., Bianchi, A., Marquardt, N., Bianchi-Berthouze, N. 2016. RealPen: Providing Realism in Handwriting Tasks on Touch Surfaces using Auditory-Tactile Feedback. In *Proceedings of the 29th Annual Symposium on User Interface Software and Technology* (UIST '16). ACM, New York, NY, USA, 195-205..

[C.28] Brudy, F., Houben, S., Marquardt, N., Rogers, Y. 2016. CurationSpace: Cross-Device Content Curation Using Instrumental Interaction. In *Proceedings of the 2016 ACM on Interactive Surfaces and Spaces* (ISS '16). ACM.

[C.27] Johnson, R., Shum, V., Rogers, Y., and Marquardt, N. 2016. Make or Shake: An Empirical Study of the Value of Making in Learning about Computing Technology. In Proceedings of the the 15th International Conference on Interaction Design and Children (IDC '16). ACM, New York, NY, USA, 440-451.

HONORABLE MENTION [C.26] Houben, S., Golsteijn, C., Gallacher, S., Johnson, R., Bakker, S., Marquardt, N., Capra, L., Rogers, Y. (2016) Physikit: Data Engagement Through Physical Ambient Visualizations in the Home. *Proceedings of CHI 2016,* ACM.

[C.25] Marquardt, N., Schardong, F., Tang, A. (2015) EXCITE: EXploring Collaborative Interaction in Tracked Environments. *Proceedings of INTERACT (2) 2015*, pp. 89-97.

[C.24] Vermeulen, J., Luyten, K., Coninx, K., Marquardt, N., and Bird, J. (2015) Proxemic Flow: Dynamic Peripheral Floor Visualizations for Revealing and Mediating Large Surface Interactions. *Proceedings of INTERACT (4) 2015*, pp. 264-281.

[C.23] Olugbade, T., Bianchi-Berthouze, N., Marquardt, N., Williams, A. C. (2015) Pain Level Recognition using Kinematics and Muscle Activity for Physical Rehabilitation in Chronic Pain. In *Proceedings 6th Conf. Affective Computing and Intelligent Interaction*.

[C.22] Ledo, D., Greenberg, S., Marquardt, N., and Boring, S. (2015) Proxemic-Aware Controls: Designing Remote Controls for Ubiquitous Computing Ecologies. In *Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI '15)*. ACM, New York, NY, USA, 187-198.

[C.21] Houben, S., and Marquardt, N. (2015) WatchConnect: A Toolkit for Prototyping Smartwatch-Centric Cross-Device Applications. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15).* ACM, New York, NY, USA, 1247-1256.

HONORABLE MENTION [C.20] Tajadura-Jiménez, A., Basia, M., Deroy, O., Fairhurst, M., Marquardt, N., and Bianchi-Berthouze, N. (2015). As Light as your Footsteps: Altering Walking Sounds to Change Perceived Body Weight, Emotional State and Gait. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems* (CHI '15). ACM, New York, NY, USA, 2943-2952. *Honorable mention, top 5%.*

[C.19] Rädle, R. Jetter, H.C., Marquardt, N., Reiterer, H., Rogers, Y. (2014) HuddleLamp: Spatially-Aware Mobile Displays for Ad-hoc Around-the-Table Collaboration. *In Proceedings at ITS 2014*, ACM, pp. 45 - 54.

[C.18] Olugbade, T. A. , Aung, M. S. H. , Marquardt, N., Williams, A. C. de C. , Bianchi-Berthouze, N. (2014) Bi-Modal Detection of Painful Reaching for Chronic Pain Rehabilitation Systems. *In Proceedings of ICMI 2014,* ACM.

[C.17] Vermeulen, J., Luyten, K., Coninx, K., Marquardt, N. (2014) The design of slow-motion feedback. *In Proceedings of ACM Conference on Designing Interactive Systems – ACM DIS* 2014, 267-270.

[C.16] Weigel, M., Boring, S., Steimle, J., Marquardt, N., Greenberg, S. and Tang, A. (2013) ProjectorKit: Easing Rapid Prototyping of Interactive Applications for Mobile Projectors. In *ACM 15th International Conference on Human-Computer Interaction with Mobile Devices and Services - MobileHCI 2013*. (Munich, Germany), 4 pages, August 27-30.

[C.15] Marquardt, N., Ballendat, T., Boring, S. and Greenberg, S. and Hinckley, K. (2012) Gradual Engagement between Digital Devices as a Function of Proximity: From Awareness to Progressive Reveal to Information Transfer. *Proceedings of the ACM Conference on Interactive Tabletops and Surfaces – ACM ITS 2012.* (Boston, MA).

[C.14] Marquardt, N., Hinckley, K. and Greenberg, S. (2012) Cross-Device Interaction via Micro-mobility and F-formations. *In Proceedings of the ACM Symposium on User Interface Software and Technology – ACM UIST 2012.* (Cambridge, MA), ACM, 13-22, October 7-10.

[C.13] Chen, X., Marquardt, N., Tang, A., Boring, S. and Greenberg, S. (2012) Extending a Mobile Device's Interaction Space through Body-Centric Interaction. *In Proceedings of the International Conference on Human-Computer Interaction with Mobile Devices and Services – ACM MobileHCI 2012* (San Francisco, CA), ACM, 151-160, Sept. 21-24.

[C.12] Boring, S., Ledo, D., Chen, X., Marquardt, N., Tang, A., Greenberg, S. (2012) The Fat Thumb: Using the Thumb's Contact Size for Single-Handed Mobile Interaction. *In Proceedings of the International Conference on Human-Computer Interaction with Mobile Devices and Services – ACM MobileHCI 2012* (San Francisco, CA), ACM, 39-48, September 21-24.

[C.11] Ledo, D., Nacenta, M., Marquardt, N., Boring, S. and Greenberg, S. (2012) The HapticTouch Toolkit: Enabling Exploration of Haptic Interactions. In *Proceedings of the Sixth international conference on Tangible and embedded interaction – ACM TEI 2012* (Kingston, Ontario, Canada), ACM, 115-122, February 19-22.

[C.10] Marquardt, N., Kiemer, J., Ledo, D., Boring, S. and Greenberg, S. (2011) Designing User-, Hand-, and Handpart-Aware Tabletop Interactions with the TOUCHID Toolkit. In *Proceedings of the ACM Conference on Interactive Tabletops and Surfaces - ACM ITS 2011.* (Kobe, Japan), ACM, 21-30, November 13-16.

[C.9] Marquardt, N., Diaz-Marino, R., Boring, S. and Greenberg, S. (2011) The Proximity Toolkit: Prototyping Proxemic Interactions in Ubiquitous Computing Ecologies. In *Proceedings of the ACM Symposium on User Interface Software and Technology – UIST 2011.* (Santa Barbara, CA), ACM, 315-326, October 16-18.

[C.8] Marquardt, N., Jota, R., Greenberg, S. and Jorge, J. (2011) The Continuous Interaction Space: Interaction Techniques Unifying Touch and Gesture On and Above a Digital Surface. In *Proceedings of the 13th IFIP TCI3 Conference on Human Computer Interaction - INTERACT 2011.* (Lisbon, Portugal), 461-476, September 5-9.

[C.7] Marquardt, N., Kiemer, J. and Greenberg, S. (2010) What Caused That Touch? Expressive Interaction with a Surface through Fiduciary-Tagged Gloves. In *Proceedings of the ACM Conference on Interactive Tabletops and Surfaces - ACM ITS 2010.* (Saarbruecken, Germany), ACM, 139-142, November 7-10.

BEST PAPER AWARD [C.6] Ballendat, T., Marquardt, N. and Greenberg, S. (2010) Proxemic Interaction: Designing for a Proximity and Orientation-Aware Environment. In *Proceedings of the ACM Conference on Interactive Tabletops and Surfaces - ACM ITS 2010.* (Saarbruecken, Germany), ACM, 121-130, November 7-10. *Best paper award.*

[C.5] Marquardt, N., Taylor, A., Villar, N. and Greenberg, S. (2010) Rethinking RFID: Awareness and Control For Interaction With RFID Systems. In *Proceedings of the ACM Conference on Human Factors in Computing Systems – ACM CHI 2010* (Atlanta, GA). ACM, 2307-2316, April 10-15.

[C.4] Marquardt, N., Gross, T., Carpendale, S. and Greenberg, S. (2010) Revealing the Invisible: Visualizing the Location and Event Flow of Distributed Physical Devices. In *Proceedings of*

the Fourth International Conference on Tangible, Embedded and Embodied Interaction - TEI'10. (Cambridge, MA), ACM, 41-48, January 25-27.

[C.3] Marquardt, N., Nacenta, M., Young, J., Carpendale, S., and Greenberg, S. and Sharlin, E. (2009) The Haptic Tabletop Puck: Tactile Feedback for Interactive Tabletops. In *Proceedings of ACM International Conference on Interactive Tabletops and Surfaces – ACM ITS 2009* (Banff, Alberta, Canada), ACM, 85-92, November 23–25.

[C.2] Marquardt, N. and Greenberg, S. (2007) Shared Phidgets: A Toolkit for Rapidly Prototyping Distributed Physical User Interfaces. In *Proceedings of the 1st international conference on Tangible and embedded interaction – ACM TEI 2007* (Baton Rouge, Louisiana), ACM, 13-20, February 15-17.

[C.1] Gross, T. and Marquardt, N. (2007) CollaborationBus: An Editor for the Easy Configuration of Ubiquitous Computing Environments. In *Proceedings of the Fifteenth Euromicro Conference on Parallel, Distributed, and Network - Based Processing - PDP 2007* (Naples, Italy). IEEE Computer Society, Los Alamitos, CA, Feb. 7-9.

JOURNAL ARTICLES

[J.5] Youngjun Cho, Simon J. Julier, Nicolai Marquardt, and Nadia Bianchi-Berthouze (2017). Robust tracking of respiratory rate in high-dynamic range scenes using mobile thermal imaging, Biomed. Opt. Express 8, 4480-4503.

[J.4] Boring, S., Greenberg, S., Vermeulen, J., Dostal, J., and Marquardt, N. (2014) The Dark Patterns of Proxemic Sensing. In *IEEE Computer*, volume 47, number 8, August 2014. IEEE, pp. 56–60.

[J.3] Marquardt, N. and Greenberg, S. (2012) Informing the Design of Proxemic Interactions. In *IEEE Pervasive Computing, 11(2)*:14-23, April-June. Joe Paradiso, Trevor Pering, Albrecht Schmidt, Eds.

[J.2] Gross, T., and Marquardt, N. (2010) Creating, Editing, and Sharing Complex Ubiquitous Computing Environment Configurations with CollaborationBus.
In *Scientific International Journal for Parallel and Distributed Computing. Scalable Computing: Practice and Experience - SCPE. Special Issue: Parallel, Distributed and Network-based Computing: an Application Perspective.* 11(3).

[J.1] Gross, T., Egla, T. and Marquardt, N. (2006) Sens-ation: A Service-Oriented Platform for the Development of Sensor-Based Infrastructures. *In International Journal of Internet Protocol Technology (IJIPT)* 1(3):159-167.

SCIENTIFIC MAGAZINE ARTICLES

[A.4] Steven Houben, Nicolai Marquardt, Jo Vermeulen, Clemens Klokmose, Johannes Schöning, Harald Reiterer, and Christian Holz. 2017. Opportunities and challenges for cross-device interactions in the wild. *interactions* 24, 5 (August 2017), 58-63.

[A.3] Yvonne Rogers, Venus Shum, Nic Marquardt, Susan Lechelt, Rose Johnson, Howard Baker, and Matt Davies. 2017. From the BBC micro to micro:bit and beyond: a British innovation. interactions 24, 2 (February 2017), 74-77.

[A.2] Greenberg, S., Carpendale, S., Marquardt, N., Buxton, B. (2012) The Narrative Storyboard: Telling a story about use and context over time. In *ACM interactions,* 19(1):64-69. ACM, January-February.

[A.1] Greenberg, S., Marquardt, N., Ballendat, T., Diaz-Marino, R. and Wang, M. (2011) Proxemic Interactions: The New Ubicomp? In *ACM interactions*, 18(1):42-50. ACM, January-February. Invited cover story.

BOOKS

[B.2] Marquardt, N. and Greenberg, S. (2015)
Proxemic Interactions: From Theory to Practice.
Synthesis Series, Morgan & Claypool Publishers.
199 pages. February 2015. ISBN: 978-1627056564

[B.1] Greenberg, S., Carpendale, S., Marquardt, N., Buxton, B. (2011)
Sketching User Experiences: The Workbook.
Morgan Kaufmann, Elsevier.
272 pages. December 2011. ISBN: 978-0-12-381959-8.

BOOK CHAPTERS

[BC.1] Vermeulen, J., Houben, S. and Marquardt, N. 2016. Fluent Transitions Between Focused and Peripheral Interaction in Proxemic Interactions. Peripheral Interaction. S. Bakker, D. Hausen, and T. Selker, eds. Springer International Publishing. 137–163.

PATENTS

[P.1] Hinckley, K. P. and Marquardt, N. (2013)
Cooperative federation of digital devices via proxemics and device micro-mobility.
US Patent App. 13/829,657, 2013.

EXTENDED ABSTRACTS OF DEMONSTRATIONS, POSTERS, VIDEOS, TUTORIALS, AND DOCTORAL SYMPOSIUM

[EA.22] Nicolai Marquardt. 2017. Sketching User Experiences: Hands-on Course of Sketching Techniques for HCI Research. In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '17). ACM, New York, NY, USA, 1261-1263.

[EA.21] Cho, Y., Berthouze, N., Julier, S., Marquardt, N. (2017) ThermSense: Smartphone-based Breathing Sensing Platform using Noncontact Low-Cost Thermal Camera. (Demo) In Proceedings of 7th International Conference on Affective Computing and Intelligent Interaction (ACII 2017). IEEE.

[EA.20] Kim Sauvé, Steven Houben, Nicolai Marquardt, Saskia Bakker, Bart Hengeveld, Sarah Gallacher, and Yvonne Rogers. 2017. *LOOP*: A Physical Artifact to Facilitate Seamless Interaction with Personal Data in Everyday Life. In *Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems* (DIS '17 Companion). ACM, New York, NY, USA, 285-288.

[EA.19] Zuzanna Lechelt, Yvonne Rogers, Nicolai Marquardt, and Venus Shum. 2016. Democratizing children's engagement with the internet of things through connectUs. In Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct (UbiComp '16). ACM, New York, NY, USA, 133-136.

[EA.18] Aneesha Singh, Ana Tajadura-Jimez, Nadia Bianchi-Berthouze, Nic Marquardt, Monica Tentori, Roberto Bresin, and Dana Kulic. 2016. Mind the Gap: A SIG on Bridging the Gap in Research on Body Sensing, Body Perception and Multisensory Feedback. In Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '16). ACM, New York, NY, USA, 1092-1095.

[EA.17] Lechelt, Z., Rogers, Y., Marquardt, N. and Shum, V. 2016. ConnectUs: A New Toolkit for Teaching About the Internet of Things. Proc. of CHI EA ’16. ACM, 3711–3714.

[EA.16] Lechelt, Z., Rogers, Y., Marquardt, N. and Shum, V. 2016. Democratizing Children's Engagement with the Internet of Things Through connectUs. Proc. of UbiComp '16. ACM, 133–136.

[EA.15] Marquardt, N. (2015) Sketching User Experiences Tutorial.
Tutorial at INTERACT (4) 2015: 644-646. 180-minute tutorial at conference.

[EA.14] Marquardt, N., Greenberg, S. (2015) Sketching User Experiences: The Hands-on Course. CHI Extended Abstracts 2015: 2479-2480, 180-minute tutorial at the conference.

BEST DEMO AWARD [EA.13] Rädle, R. Jetter, H.C., Marquardt, N., Reiterer, H., Rogers, Y. (2014) Demonstrating HuddleLamp: Spatially-Aware Mobile Displays for Ad-hoc Around-the-Table Collaboration. Extended Abstract of ITS 2014: 435-438

[EA.12] Baker, J., Marquardt, N., Rogers, Y. (2014) Open, Small-scale Fabrication: A Catalyst for Educating Communities about the Creation of Products. FabLearn Europe: Digital Fabrication in Education Conference.

[EA.11] Olugbade, T. A., Marquardt, N., and Bianchi-Berthouze, N. (2014) A Robotic Assisting-Therapist for Chronic Pain Rehabilitation: Mood-State Recognition. HRI Pioneers Workshop 2014 at ACM HRI Conference.

[EA.10] Marquardt, N. (2013) Proxemic interactions with and around digital surfaces. Tutorial at ACM Conference on Interactive Tabletops and Surfaces – ITS 2013. (St Andrews, UK), ACM, 493-494. 120-minute tutorial at conference.

[EA.9] Marquardt, N. (2013) Sketching User Experiences: Stories, Strategies, Surfaces. Tutorial at ACM Conference on Interactive Tabletops and Surfaces – ITS 2013. (St Andrews, UK), ACM, 495-496. 120-minute tutorial at conference.

[EA.8] Weigel, M., Tang, A., Boring, S., Marquardt, N. and Greenberg, S. (2013) From Focus to Context and Back: Combining Mobile Projectors and Stationary Displays. In Proceedings of GRAND Network Centres of Excellence Meeting 2013, 4 pages. Honourable Mention Award.

[EA.7] Marquardt, N. (2012) Sketching User Experiences: Stories, Strategies, Surfaces. Tutorial at ACM Conference on Interactive Tabletops and Surfaces – ITS 2012. (Boston, MA), ACM, 2 pages. 90-minute tutorial at conference.

[EA.6] Marquardt, N. (2011) Proxemic Interactions in Ubiquitous Computing Ecologies. In ACM Proc. CHI Extended Abstracts: ACM CHI Doctoral Symposium. (Vancouver, British Columbia, Canada), ACM, 1033-1036, May 7-12.

[EA.5] Marquardt, N., Taylor, A., Villar, N. and Greenberg, S. (2010) Visible and Controllable RFID Tags. In Video Showcase, DVD Proceedings of the ACM Conference on Human Factors in Computing Systems - ACM CHI'10. ACM, 3057-3062, April 10-15. Video and paper, demonstrated live at CHI.

[EA.4] Marquardt, N. and Greenberg, S. (2010) Applying Proxemics to Mediate People's Interaction with Devices in Ubiquitous Computing Ecologies. In Doctoral Symposium at ACM Conference on Interactive Tabletops and Surfaces - ITS'2010. (Saarbruecken, Germany), ACM, 4 pages, November 7-10.

[EA.3] Marquardt, N., Young, J., Sharlin, E. and Greenberg, S. (2009) Situated Messages for Asynchronous Human-Robot Interaction. In Adjunct Proc. Human Robot Interaction (Late Breaking Abstracts) - HRI'09. (San Diego, CA), 301-302, March 11-13.

[EA.2] Marquardt, N., Nacenta, M., Young, J., Carpendale, S., and Greenberg, S. and Sharlin, E. (2009) The Haptic Tabletop Puck: The Video. In DVD Proceedings of Interactive Tabletops and Surfaces - ITS'09. (Banff, Alberta, Canada), ACM, November 23-25.

[EA.1] Jain, A., Marquardt, N. and Taylor, A. (2008) Near-Future RFID. In Proceedings of Ethnographic Praxis in Industry Conference - EPIC. American Anthropology Association, 332-333. Artifact submission (similar to demonstration).

WORKSHOP SUBMISSIONS

[W.4] Brudy, F., Marquardt, N., Rogers, Y., Sellen, A. and O'Hara, K. 2016. The Challenges of Using an Existing Cross-Device Interaction Prototype for Supporting Actual Curation Practices.

[W.3] Vermeulen, J., Luyten, K., Coninx, K., Marquardt, N. (2014) Addressing Challenges in Crowded Proxemics-Aware Installations. In Social NUI workshop at DIS 2014.

[W.2] Marquardt, N. and Greenberg, S. (2012) Sketchnotes for Visual Thinking in HCI. *In Proc. ACM Conference on Human Factors in Computing Systems: CHI Workshop on Visual Thinking and Digital Imagery.* (Workshop held at ACM CHI), 5 Pages, May 5.

[W.1] Marquardt, N. and Taylor, A. (2009) RFID Reader Detector and Tilt-Sensitive RFID Tags. In DIY for CHI: Methods, Communities, and Values of Reuse and Customization. (Workshop held at the ACM CHI 2009 Conference, Boston, MA), (Buechley, L., Paulos, E., Rosner, D., Williams, A., Ed.), April 5.

WORKSHOP ORGANISATION

[WO.7] Nicolai Marquardt, Steven Houben, Michel Beaudouin-Lafon, and Andrew D. Wilson. 2017. HCITools: Strategies and Best Practices for Designing, Evaluating and Sharing Technical HCI Toolkits. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems* (CHI EA '17). ACM, New York, NY, USA, 624-627.

[WO.6] Houben, S., Marquardt, N., Vermeulen, J., Schöning, J., Klokmose, C., Reiterer, H., Korsgaard, H. and Schreiner, M. 2016. Cross-Surface: Challenges and Opportunities for "Bring Your Own Device" in the Wild. Proc. of CHI EA '16. ACM, 3366–3372.

[WO.5] O'Kane, A.A., Hurst, A., Niezen, G., Marquardt, N., Bird, J. and Abowd, G. 2016. Advances in DIY Health and Wellbeing. Proc. of CHI EA '16. ACM, 3453–3460.

[WO.4] Porcheron, M., Lucero, A., Quigley, A., Marquardt, N., Clawson, J. and O'Hara, K. 2016. Proxemic Mobile Collocated Interactions. Proc. of CHI EA '16. ACM, 3309–3316.

[WO.3] Houben, S., Vermeulen, J., Klokmose, C. N., Marquardt, N. Schoening, J., Reiterer, H. (2015) Cross-Surface: Workshop on Interacting with Multi-Device Ecologies in the Wild. Proceedings of ITS 2015, ACM, pp. 485-489

[WO.2] Gallacher, S., Golsteijn, C., Kalnikaite, V., Houben, S., Johnson, R., Harrison, D., Marquardt, N. (2015) SenCity 2: visualizing the hidden pulse of a city. Workshop proposal in the proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2015 ACM International Symposium on Wearable Computers. ACM, pp. 1391 – 1394.

[WO.1] Hurtienne, J., Jetter, H.-C., Marquardt, N., Pederson, T. (2014) Ubicomp beyond devices: people, objects, space and meaning. Workshop at NordiCHI 2014: 837-840.

THESIS

[T.2] Marquardt, N. (2013) Proxemic Interactions in Ubiquitous Computing Ecologies. PhD thesis, Department of Computer Science, University of Calgary, Calgary, Alberta, Canada, July.

[T.1] Marquardt, N. (2008) Developer Toolkit and Utilities for Rapidly Prototyping Distributed Physical User Interfaces. Diplom Thesis, Bauhaus-University Weimar, Faculty of Media,

Media Systems Science, Germany, March 10. Part of this research was done as visiting researcher at the Interactions Lab, University of Calgary.

TEACHING

2016, 2017 — Instructor and Module Convener, PSYCGO17, Interaction Design, HCI MSc Module at UCL

2015, 2016, 2017, 2018 — Instructor PSYCGI16, Physical Computing, HCI MSc Module at UCL
Setting up new module, preparing lecture material and resources, giving 32h of lectures and labs (e.g., prototyping methods, electronics and sensing, digital fabrication), and running additional tutorials. For this module I also organised hands-on tutorial lessons introducing cutting edge physical computing hardware, setup digital fabrication sessions in the Institute of Making, and introduced innovative forms of assessment through design portfolios, demos and video submissions.
Student evaluation ratings (overall module 4.5/5.0, and teacher 4.8/5.0).
(16 students 2015, 22 students 2016)

2013, 2014, 2015 — Instructor PSYCGI07, Design Practice, HCI MSc Module at UCL
Course preparation, giving 24h of lectures and labs (e.g., interaction design, user testing, sketching techniques, prototyping), running tutorials and assessment. I included teaching innovations such as the introduction of peer feedback mechanisms (Peerwise for design work in 2014), linking teaching and research through mentoring of group work through postdocs and PhD students with selected projects out of their current research topics, and introducing an interactive text book with additional features for sharing comments in 2015. Introduction of new forms of assessment through design portfolios.
Student evaluation scores: satisfaction with module of 4.9/5.0 and teacher rating of 4.9/5.0.
(35 students 2013, 38 students 2014, 49 students 2015)

2014 — Co-Instructor PSYCGI12, Design Experience II, HCI MSc Module at UCL
Project supervision of HCI projects and assessment (31 students).

2014, 2016, 2017 — Co-Instructor COMP3012, Interaction Design, CS BSc Module at UCL
Course preparation, giving lectures, running tutorials and assessment (153 students).

2012 — Teaching assistant/co-instructor CPSC 581, Human-Computer Interaction II
Course preparation, giving lectures (e.g., sketching techniques, prototyping), giving tutorials for building interactive systems (e.g., Windows Phone 7, Kinect, Phidgets), and grading assignments. (Instructor: Saul Greenberg, 9 students)

2010 — Teaching assistant CPSC 701.81, Ubiquitous Computing
Tutorials in prototyping technologies (e.g., electronics, microcontrollers) and supporting students with their semester/final projects. (Instructor: Saul Greenberg, 12 students)

2009 — Teaching assistant CPSC 581, Human-Computer Interaction II
Tutorials for building interactive systems (e.g., with Phidgets, SMART tables, C#, WPF) and grading assignments. (Instructor: Saul Greenberg, 11 students)
Received Department of Computer Science TA award

2009 — Teaching assistant for Computer Science Continuous Tutorials
Tutorials and advise for first year computer science students; covering fundamental computer science and algorithm classes.

2006 — Teaching assistant for supervising research project Swarm Intelligence II
Undergrad student supervision for semester project in area of swarm intelligence algorithms and cluster analysis. (Instructor: Bernd Froehlich, 6 students)

2005	Teaching assistant, Web Technologies I Developing and giving tutorials (e.g., client/server systems, SOAP, XML-RPC, sockets) and grading assignments. (Instructor: Benno Stein, ~40 students)
2003, 2004	Teaching assistant, Programming Lectures and Software Engineering Developing and giving tutorials (e.g., OOP, C++, STL, design patterns, SCHEME, UML design). (Instructor: Bernd Froehlich, ~60 students)
2003, 2004, 2005	Mentor for new CS students during their first semester. Provided 1-to-1 help to students, organized events and workshops (~25 students).

PHD STUDENT SUPERVISION

Since 10/2015	Youngjun Cho, PhD student, University College London Secondary supervisor, Co-supervision with Nadia Berthouze
Since 10/2015	Susan Lechelt, PhD student, University College London Secondary supervisor, Co-supervision with Yvonne Rogers
Since 01/2015	Frederik Brudy, PhD student, University College London Microsoft Research Cambridge and UCL co-funded PhD studentship Primary supervisor, Co-supervision with Yvonne Rogers
09/2013 – 11/2017	Temi Olugbade, PhD student, University College London Secondary supervisor, Co-supervision with Nadia Berthouze
Since 09/2013	Jessi Baker, PhD student, University College London (currently on temporary leave) Secondary supervisor, Co-supervision with Yvonne Rogers
Since 09/2013	Geraint Jones, PhD student, University College London Secondary supervisor, Co-supervision with Yvonne Rogers

BSC AND MSC STUDENTS

06/2017 – 09/2017	Xiaodi Zhong, HCI MSc Final Project, University College London
06/2017 – 09/2017	Wanyu Fu, HCI MSc Final Project, University College London
06/2017 – 09/2017	Ryan Horgan, HCI MSc Final Project, University College London
06/2017 – 09/2017	Wenyu Zhang, HCI MSc Final Project, University College London
06/2017 – 09/2017	Suppachai Suwanwatcharachat, HCI MSc Final Project, University College London
06/2017 – 09/2017	Sze Nga Ho, HCI MSc Final Project, University College London
06/2016 – 09/2017	Elise Hein, HCI MSc Final Project, University College London
06/2016 – 09/2016	Isabel Benavente Rodríguez, HCI MSc Final Project, University College London Gesture Elicitation Study on How to Opt-in & Opt-out from Interactions with Large Public Displays
06/2016 – 09/2016	Jordi Casanueva David, HCI MSc Final Project, University College London Data Sculpture for the Quantified Self – A study into physical ambient data visualisation and time-based activity tracking
06/2016 – 09/2016	Joshua Kevin Budiman, HCI MSc Final Project, University College London Voyageur: Investigating Overviews in Collaborative Sensemaking
06/2016 – 09/2016	Jennifer Sheahan, HCI MSc Final Project, University College London Won't somebody please think of the parents? Designing activities for engagement with STEM learning.

06/2016 – 09/2016 Victor Armas, HCI MSc Final Project, University College London
Exploring the potential of a re-programmable remote control for IoT devices in a home environment.

08/2015 – 09/2016 Chi-Jui Wu, CS ML MSc Final Project, University College London
EagleSense: Real-Time Human Posture and Activity Recognition for Interactive Spaces using Top-View Depth-Sensing Cameras

06/2015 – 09/2015 Sandeep Zechariah George, HCI MSc Final Project, University College London
Design of high-resolution, low-cost tactile shape displays

06/2015 – 09/2015 Mohamad Fadhli bin Ismail, CS MSc Final Project, University College London
Smart watch interaction with IoT

06/2015 – 09/2015 Shing Yau Lau, CS MSc Final Project, University College London
Sensing platform for smart watch gestural interaction

09/2014 – 04/2015 Kelvin Khoo Kuok Yao, CS MEng final year project, University College London
Interactive Tactile Images for Blind Children

05/2014 – 08/2014 Steven Houben, summer research internship, University College London
Prototyping toolkit for cross-device smart-watch applications

06/2014 – 09/2014 Dominic Hey, HCI MSc Final Project, University College London
Interactive Tactile Images for Blind Children

06/2014 – 09/2014 Julian Garcia Camacho, HCI MSc Final Project, University College London
Wizard-of-Oz Prototyping in the Wild

06/2014 – 09/2014 Maria Basia, HCI MSc Final Project, University College London
Sound perception experiments
(student's work was published at CHI and won honourable mention award)

09/2013 – 05/2014 Stephanie Georgiou, CS BSc Final Project, University College London
Interactive Displays for the Visually Impaired

09/2013 – 05/2014 Aizhan Demeugaliyeva, CS BSc Final Project, University College London
Run-time engine for multi-modal tactile displays

05/2012 – 08/2012 Martin Weigel, summer research internship, University of Calgary
Proxemic interactions with mobile projectors, in submission
Co-supervised with Saul Greenberg
and Juergen Steimle, MIT

09/2010 – 05/2012 Anthony Xiang, B.Sc. thesis, University of Calgary
Body-centric interactions, published at ACM MobileHCI '12
Co-supervised with Saul Greenberg

05/2011 – 08/2011 David Ledo, NSERC summer project, University of Calgary
The TouchID toolkit, published at ACM ITS '11
Co-supervised with Saul Greenberg

06/2010 – 04/2011 Till Ballendat, Diplom thesis, University of Calgary
Visualization of and interaction with digital devices as a function of proximity, published at ACM ITS '12. Co-supervised with Saul Greenberg and Andreas Butz, Ludwig Maximilians University Munich

06/2010 – 04/2011 Johannes Kiemer, Diplom thesis, University of Calgary
Fiduciary-tagged glove toolkit, published at ACM ITS '10 and ACM ITS '11
Co-supervised with Saul Greenberg

05/2010 – 04/2011 David Ledo, NSERC summer project and CPSC 503, University of Calgary
The haptic tabletop puck API, published at ACM TEI '12
Co-supervised with Saul Greenberg

09/2009 – 03/2010 Till Ballendat, graduate research project, University of Calgary
Proxemic media player, published at ACM ITS '10
Co-supervised with Saul Greenberg

INVITED RESEARCH TALKS AND KEYNOTES

[I.16] Invited talk: *Physical Computing Research*, at University of Calgary, May 2016.

[I.15] Invited talk: *Towards ad-hoc collaboration spaces with cross-device interaction techniques*, at University of Middlesex, invitation by Kai Xu, UK, October 2015.

[I.14] Invited talk: *Proxemic Interactions in Ubiquitous Computing Ecologies*, at University of Konstanz, invitation by Harald Reiterer, Germany, July 2015.

[I.13] Invited talk: *Towards ad-hoc collaboration spaces with cross-device interaction techniques,* at University of Muenster, invitation by Christian Kray, Germany, June 2015.

[I.12] Invited talk: *Towards ad-hoc collaboration spaces with cross-device interaction techniques,* at University of St Andrews, invitation by Aaron Quigley and Miguel Nacenta, UK, April 2015.

[I.11] Invited talk: Towards ad-hoc collaboration spaces with cross-device interaction techniques, at University of Middlesex, UK, January 2015.

[I.10] Invited talk: *Proxemic for Devices: Towards ad-hoc collaboration spaces with spatially-aware devices,* at Hasselt University, invitation by Katrin Coninx, Belgium, October 2014.

[I.9] Invited talk: *Proxemic Interactions in Ubiquitous Computing Ecologies,* at Bauhaus-University Weimar, invitation by Eva Hornecker and Bernd Froehlich, Germany, April 2014.

[I.8] Invited Keynote: *Proxemic Interactions in Ubiquitous Computing Ecologies,* (with Saul Greenberg) at Dagstuhl Seminar, 2013.

[I.7] Invited Keynote: *Proxemic Interactions in Ubiquitous Computing Ecologies,* at Proxemics in HCI workshop as part of NordiCHI 2012 (invited by Kasper Hornbaek et al.), Copenhagen, Denmark, October 2012.

[I.6] *Proxemic Interactions in Ubiquitous Computing Ecologies,* MIT Media Lab, Fluid Interfaces group (invited by: Juergen Steimle), Cambridge, MA, USA, October 2012.

[I.5] *Proxemic Interactions in Ubiquitous Computing Ecologies,* Ludwigs-Maximilian University, Department of Computer Science (invited by: Andreas Butz), Munich, Germany, April 2012.

[I.4] *Proxemic Interactions,* SMART Technologies (invited by: Edward Tse), Calgary, Alberta, Canada, September 2011.

[I.3] *Proxemic Interactions in Ubiquitous Computing Ecologies,* University of Manitoba, Department of Computer Science (invited by: James E. Young, Pourang Irani), Winnipeg, Manitoba, Canada, August 2011.

[I.2] *Inspired by Edison: Paper-pencil Sketching alongside Sketching in Hardware,*
Sketching in Hardware conference 2011 (invited by: Mike Kuniavsky), Philadelphia, PA, July 2011.

[I.1] *Visibility, Multiplicity, and Openness.* Sketching in Hardware conference 2010 (invited by: Mike Kuniavsky), Los Angeles, CA, July 2010.

GUEST LECTURES AND TUTORIALS

[L.20] Sketching User Experiences: Tutorial. Workshop at University of Hamburg, 3 days, January 2017.

[L.19] Sketching User Experiences: Tutorial. Workshop at University of Hamburg, 3 days, July 2016.

[L.18] Sketching User Experiences: Tutorial, Tutorial at INTERACT conference, Bamberg, Germany, 180 minutes, September 2015.

[L.17] *Human-Computer Interaction: Foundations, Principles and Methods.,* Tutorial at Fraunhofer Summer School, Rostock, 180 minutes, August 2015.

[L.16] *Sketching User Experiences: The hands-on course,* Tutorial at ACM CHI conference 2015, Seoul, South Korea, 180 minutes, May 2015.

[L.15] Sketching User Experiences, at Ludwigs-Maximilian University, course on Interaction Design (Alexander Wiethoff and Heinrich Hussmann), Munich, Germany, 180 minutes, April 2015.

[L.14] *Sketching User Experiences: The hands-on course,* Tutorial at ACM ITS conference 2014, Dresden, 90 minutes, November 2014.

[L.13] *Physical Computing and Digital Fabrication,* Tutorial at INAOE UbiHealth winter school, Mexico, 180 minutes, January 2014.

[L.12] *Sketching User Experiences,* at Bauhaus-University Weimar (invited by Eva Hornecker), Weimar, Germany, 180 minutes, 2014.

[L.11] *Sketching User Experiences,* at Ludwigs-Maximilian University, course on Interaction Design (Alexander Wiethoff and Heinrich Hussmann), Munich, Germany, 180 minutes, April 2014.

[L.10] *Sketching User Experiences: Stories, Strategies, and Surfaces,* Tutorial at ACM ITS conference 2013, St Andrews, UK, 90 minutes, November 2013.

[L.9] *Sketching User Experiences,* at Ludwigs-Maximilian University, course on Interaction Design (Alexander Wiethoff and Heinrich Hussmann), Munich, Germany, 180 minutes, April 2013.

[L.8] *Sketching User Experiences: Stories, Strategies, and Surfaces,* Tutorial at ACM ITS conference 2012, Boston, MA, 90 minutes, November 2012.

[L.7] *The Proximity Toolkit,* University of Calgary, course on Ubiquitous Computing (CPSC 781, Saul Greenberg), 90 minutes, October 2012.

[L.6] *Sketching User Experiences: Stories, Strategies, and Surfaces,* NSERC SurfNet Annual General Meeting, Kitchener, Ontario, Canada, 90 minutes, September 2012.

[L.5] *Sketching User Experiences,* SMART Technologies (invited by: Edward Tse, Kevin Viggers), Calgary, Alberta, Canada, 60 minutes, August 2012.

[L.4] *Sketching User Experiences,* at Ludwigs-Maximilian University, course on Interaction Design (Alexander Wiethoff and Heinrich Hussmann), Munich, Germany, 180 minutes, April 2012.

[L.3] *Beyond Keyboard and Mouse: Novel Computer Interfaces in Education,* Calgary City Teachers' Convention (CCTC), 90 min., Calgary, Alberta, Canada, February 2012.

[L.2] *Programming Microcontrollers with the Microsoft .NET Micro Framework 4.0 Platform,* University of Calgary, course on Ubiquitous Computing (CPSC 781, Saul Greenberg), 180 minutes, March 2011.

[L.1] *Phidgets – Hardware for Prototyping Ubiquitous Computing Applications,* at Bauhaus-University Weimar, course on Ubiquitous Computing (Tom Gross). 90 minutes, June 2006.

EXTERNAL EXAMINER

[E.4] University Paris Sud (France): Upgrade Viva for German Leiva
Committee: Jean-Daniel Fekete, Nicolai Marquardt (supervisor: Michel Beaudouin-Lafon)
Viva date: July 20, 2017

[E.3] University Paris Sud (France): External examiner for PhD defense of Can Liu
Thesis committee: Olivier Chapuis, Michel Beaudouin-Lafon
Defense date: December 17, 2015

[E.2] University of Lancaster (UK): External examiner for PHD defense of Yanxia Zhang
Thesis committee: Hans Gellersen, Walterio Mayol-Cuevas
Defense date: November 6, 2015

[E.1] Hasselt University Belgium (Belgium): External examiner for PhD defense of Jo Vermeulen,
Thesis committee: Kris Luyten, Karin Coninx
Defense date: December 11, 2014

OUTREACH ACTIVITIES

[OR.4] *Design for Transfer:* Participating at Session at Global Disability Lab Innovations Hub.
Designing new solutions for wheelchair users transfer

[OR.3] *Royal Institution: Master Class in Computer Science.*
"Sensing your body", activities around human-computer interaction.
180 minutes, March 14, 2015.

[OR.2] Big Bang Event, London: CodeMe creative making and coding activities,
UCL Computer Science outreach event, 6h, June 30, 2015.

[OR.1] *CodeMe creative making and coding activities,*
UCL Computer Science outreach event, May 28, 2015.

SELECTED MEDIA COVERAGE OF RESEARCH PROJECTS

[M.28] Science Daily, September 13, 2017
New software turns mobile-phone accessory into breathing monitor.
https://www.sciencedaily.com/releases/2017/09/170913193124.htm
Article syndicated at: Phys.org, sciencebusiness.net, sciencenewsline.com, bioportfolio.com, technologynetworks.com, news-medical.net, medimaging.net

[M.27] New Scientist, article by Corinne Burns. November 19, 2014.
Magic shoes: How to hear yourself instantly happy
https://www.newscientist.com/article/dn26524-magic-shoes-how-to-hear-yourself-instantly-happy/

[M.26] The Telegraph, article by Sarah Knapton. November 21, 2014.
How hacking the sounds in your head could be the key to happiness. Scientists at University College London believe it is possible to 'hear yourself happy'
http://www.telegraph.co.uk/news/science/science-news/11245487/How-hacking-the-sounds-in-your-head-could-be-the-key-to-happiness.html

[M.25] Deutschland Funk (Germany), article by Anneke Meyer. September 7, 2016.
Wie Sinnestäuschungen unser Selbstbild beeinflussen.
http://www.deutschlandfunk.de/koerperwahrnehmung-wie-sinnestaeuschungen-unser-selbstbild.676.de.html?dram:article_id=365228

[M.24] ENGADGET UK, article by Mike Wehner. October 24th 2014.
"This lamp lets you combine all your iOS gadgets into one huge touchscreen"
http://www.engadget.com/2014/10/24/this-lamp-lets-you-combine-all-your-ios-gadgets-into-one-huge-to/

[M.23] GIZMODO, article by Andrew Liszewski. October 24th 2014.
"A Hacked Lamp Turns Multiple Mobile Devices Into a Single Giant Display"
http://gizmodo.com/a-hacked-lamp-turns-multiple-mobile-devices-into-a-sing-1650231769
Syndicated in Gizmodo Australia and Germany:
http://www.gizmodo.com.au/2014/10/a-hacked-lamp-turns-multiple-mobile-devices-into-a-single-giant-display/
http://www.gizmodo.de/2014/10/27/huddlelamp-mehrere-mobilgeraete-werden-zu-einem-grossen-display-video.html

[M.22] Hackaday, article by Elliot Williams. October 24th 2014.
"Huddlelamp turns multiple tablets into single desktop"

http://hackaday.com/2014/10/24/huddlelamp-turns-multiple-tablets-into-single-desktop/
Syndicated in Uebergizmo:
http://www.ubergizmo.com/2014/10/the-huddlelamp-turns-multiple-mobile-devices-into-a-single-desktop/

[M.21] iDownloadBlog, article by Christian Zibreg. October 24th 2014.
"HuddleLamp combines all your Apple mobile devices into a massive multitouch canvas"
http://www.idownloadblog.com/2014/10/24/mint-huddlelamp/

[M.20] Techmundo, BRAZIL, article by Renan Haman. October 24th 2014.
"HuddleLamp: projeto do MIT transforma vários portáteis em interface única"
http://www.tecmundo.com.br/curiosidade/64988-huddlelamp-projeto-mit-transforma-varios-portateis-interface-unica.htm

[M.19] Apparata, NETHERLANDS. October 24th 2014.
"Bureaulamp maakt één groot scherm van al je apparaten"
http://www.apparata.nl/nieuws/deze-bureaulamp-maakt-van-al-je-apparaten-een-groot-scherm-9930

[M.18] GadgetsMagazine, NETHERLANDS, article by Jens Royakkers. October 24th 2014.
"HuddleLamp laat al je gadgets samenwerken"
http://www.gadgetsmagazine.nl/2014/10/huddlelamp-laat-al-je-gadgets-samenwerken/

[M.17] FAST COMPANY, article by John Pavlus. February 2013.
http://www.fastcodesign.com/1671741/fat-thumb-a-one-handed-alternative-to-pinch-to-zoom

[M.16] MIT Technology Review, article by Nidhi Subbaraman. "The Anti Pinch To Zoom", December 2012.
http://www.technologyreview.com/view/509216/the-anti-pinch-to-zoom/

[M.15] CBC Radio Edmonton, CBC Radio Calgary. Interview with co-author Sebastian Boring about the Fat Thumb mobile Interaction Technique. July 2012.

[M.14] PC World, article by Kevin Lee. July 2012.
http://www.pcworld.com/article/258804/fat_thumb_recognizes_your_oversized_digits_lets_you_multitouch_zoom_with_one_finger.html

[M.13] Engadget, article by Jon Fingas. July 2012.
http://www.engadget.com/2012/07/05/university-of-calgary-researchers-devise-fat-thumb-one-handed-phone-use/

[M.12] Gizmodo, article by Andrew Liszewski. July 2012.
http://gizmodo.com/5923574/your-fat-thumb-could-let-you-navigate-your-smartphone-single+handedly

[M.11] TUAW, article by Kelly Hodgkins. July 2012.
http://www.tuaw.com/2012/07/05/university-of-calgary-experimenting-with-one-handed-iphone-gestu/

[M.10] Ubergizmo, article by George Wong. July 2012.
http://www.ubergizmo.com/2012/07/fat-thumb/

[M.9] Phone Arena, article by Victor H.. July 2012.
http://www.phonearena.com/news/Fat-Thumb-smartphone-interface-makes-pinching-easy-with-one-hand_id31952

[M.8] CrackBerry.com, article by Adam Zeis. July 2012.
http://crackberry.com/fat-thumb-lets-you-use-your-touchscreen-one-hand

[M.7] Stuff.tv article . July 2012.
http://www.stuff.tv/news/phone/news-nugget/fat-thumb-technology-solves-one-handed-smartphone-woes

[M.6] Metro News, article by Katie Turner. July 2012.
http://metronews.ca/news/edmonton/292526/university-of-calgary-developers-push-for-fat-thumb-phone-integration

[M.5] IEEE Computer, article by Linda Paulson. July 2010.
http://grouplab.cpsc.ucalgary.ca/Publications/2010-RFID.IEEEComputerJuly

[M.4] PC World and IDG News Service, video by Nick Barber. April 2010.
http://www.pcworld.com/article/194177/researchers_work_to_create_secure_rfid_tags.html

[M.3] ACM Technews. Communications of the ACM. April 2010.
http://cacm.acm.org/news/86641-researcher-aims-to-secure-rfid-tags/fulltext/

[M.2] IDG News Service, article by Nick Barber. April 2010.
http://www.pcworld.com/businesscenter/article/194388/controlling_rfid_tags_to_protect_privacy.html

IDG article syndicated in: PC World USA, PC World Australia, PC World Spain, Computer World, Network World, IT World, CIO

[M.1] CHIP magazine (Germany), Hubert Burda Media. April 2010.
http://business.chip.de/news/RFID-Bessere-Absicherung-gegen-Datendiebstahl_42521793.html

UNIVERSITY ADMINISTRATIVE ACTIVITES

since 09/2017 Deputy Director of Studies, Computer Science, UCL

since 10/2015 MSc Project Coordinator, HCI-E MSc program,
UCL Interaction Centre

since 02/2014 Computer Science Space Planning Group, Department of Computer Science, UCL.
Planning move of part of the CS department to new building in Gower Street 66-72 and the overall strategy for teaching, research, lab and office spaces in the department.

01/2004 – 05/2008 Member of the university elections committee and member of the committee for research and science (Bauhaus-University Weimar)

06/2002 – 06/2005 Executive board member of the students' association at the Faculty of Media, the council at the Faculty of Media, and the board of examiners for Media Systems (Bauhaus-University Weimar)

06/2002 – 06/2005 Evaluation committee member at the "neudeli" entrepreneur centre
(Bauhaus-University Weimar)

06/2003 – 06/2005 Member of the finance committee, academic committee, and technology infrastructure committee of the senate (Bauhaus-University Weimar)

06/2003 – 06/2004 Member of university senate (Bauhaus-University Weimar)

VOLUNTEERING AND SERVICE

Since 2009 **Conference committee member:**

ACM ISS 2016 Conference Co-Chair
ACM TEI Graduate Student Consortium Co-Chair
ACM UIST 2015 Demo Co-Chair
ACM ITS 2015 Workshops and Tutorials Co-Chair
ACM MobileHCI Demo Co-Chair
IEEE Mobiquitous 2014 Local Co-Chair
ACM UIST 2014 Demo Co-Chair
ACM ITS 2014 Workshops, Studios, Tutorials Co-Chair
ACM UIST 2013 Student Innovation Contest Co-Chair
ACM MobileHCI 2013 E-publications Co-Chair
ACM TEI 2009 web chair
ACM CHI 2008/2009 Student Volunteer Co-Chair

Since 2011 **Program committee and associate chair:**

ACM CHI 2018 papers
ACM ISS 2017 papers
ACM CHI 2017 demos
ACM EICS 2016 papers
ACM DIS 2016 papers
ACM CHI 2015 papers
ACM ITS 2015 papers

ACM TEI 2015 papers
ACM MobileHCI 2015
ACM CHI 2014 papers
ACM DIS 2014 papers
ACM PerDis 2014 papers
ACM ITS 2014 papers
ACM ITS 2014 posters extended abstracts
ACM UIST 2013 papers
ACM CHI 2013 Work-in-progress
Pervasive 2011 papers

Since 2008 **Reviewer:**

ACM CHI 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
ACM ITS 2009, 2010, 2011, 2012, 2013, 2014, 2015
ACM ISS 2016, 2017
ACM TEI 2008, 2010, 2011, 2013, 2014, 2015, 2016, 2017
ACM UIST 2008, 2009, 2011, 2012, 2013, 2014, 2015, 2016, 2017
ACM MobileHCI 2012, 2014, 2015, 2017
Others: ACM CHI Play 2017, ACM CSCW 2016, ACM Ubicomp 2011, 2014, 2016
ACM EICS 2011, ACM DIS 2012, 2014, 2016, 2018, NordiCHI 2012, MUM 2013, INTERACT 2011 and 2015, ICMI 2015, GI 2015
Journals: ToCHI, TVCJ, TVCG, JCSCW

2004 – 2011 Student volunteer: ACM CHI 2004, CHI 2006, CSCW 2006, ITS 2010, UIST 2011

LANGUAGE SKILLS

GERMAN Mother tongue

ENGLISH Fluent

PROFESSIONAL MEMBERSHIPS

ACM (Association for Computing Machinery)
IEEE (Institute of Electrical and Electronic Engineers)

REFERENCES

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