

Computational Foundry
Swansea University
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DR. THOMAS REITMAIER

current position

Aug. 2016 – present

Digital Economy Research Assistant

Swansea University, *Swansea, UK*

Facilitating and supporting applied interdisciplinary research to address pressing societal issues through human-centred digital innovations at the CHERISH Digital Economy Research Centre.
Collaborators: Professor Matt Jones and the Future Interaction Technology Lab

education

2012 – 2018

UNIVERSITY OF CAPE TOWN

Cape Town, South Africa

Ph.D., Computer Science.

Scholarship: Microsoft Research PhD Scholarship

Topic: Human-Centred Computer Architecture: Redesigning the Mobile Datastore & Sharing Interface

Supervisors: Professors Edwin Blake, Richard Harper, & Gary Marsden

2009 – 2011

M.Sc., Computer Science, awarded with distinction.

Thesis: Designing Digital Storytelling for Rural African Communities

Supervisor: Professor Gary Marsden

Advisor: Professor Nicola Bidwell

2008

B.Sc., (Hons), Information Technology, awarded with first class honours.

Project: Mobile Digital Stories: A User-Centered Design Project

Supervisor: Professor Gary Marsden

2005 – 2007

RHEINISCH-WESTFÄLISCHE TECHNISCHE HOCHSCHULE

Aachen, Germany

Vordiplom in Computer Science (Informatik)

Minor: Psychology

previous experience

July – Sept.
2014

Research Intern

Microsoft Research, *Cambridge, UK*

Researched and prototyped a mobile datastore – *My Stuff* – that explores more nuanced forms of sharing and new file abstractions that can evolve to represent the social life a file gains when it is shared between people or posted to the cloud, see [T1].

Collaborators: Professor Richard Harper and the Human Experience & Design (HxD) Group

2012

Design Consultant

Meraka Insitute, *Pretoria, South Africa*

Co-designed and implemented two iterations of an asynchronous audio repository and sharing system – *Our Voices* – to support communication between and within villages in a close-knit, rural, South African community, see [c9].

Collaborators: Professor Nicola Bidwell and the Mankosi Community

May – July
2010

Research Intern

Microsoft Research, *Cambridge, UK*

Researched and prototyped new mobile experiences to support co-present interaction and media exchange among groups of people, see [c7].

Collaborators: Professor Richard Harper and the Computer Mediated Living (CML) Group

Jan – Feb
2009

Research Intern

Nokia Research Africa, *Nairobi, Kenya*

Prototyped a mobile peer-to-peer (P2P) music distribution service to support the informal music industry of urban Kenyan slums.

Mentor: Jussi Impiö

scholarships, honours, awards, & prizes

2013-2016

Microsoft Research PhD Scholarship for GBP35 500.

2015

Early Childhood Development Hackathon ZAR10 000 prize for the most innovative project.

2012 s2A3 *Master's Medal* finalist for the best M.Sc. degree of the year at UCT.

2012 *Entelect UCT Computer Science Award* for the best publication [J2] by an M.Sc. student.

publications & presentations

- journal articles
- [J1] REITMAIER, T. 2012. "She Looked Deep Into Our Eyes': Reflections on Cross-Cultural Practice in Rural Africa." *Knowledge Management for Development Journal* 7 (3): 327–339. DOI: [10.1080/19474199.2011.649011](https://doi.org/10.1080/19474199.2011.649011)
 - [J2] REITMAIER, T., N. J. BIDWELL, & G. MARSDEN. 2011. "Situating Digital Storytelling Within African Communities." *International Journal of Human-Computer Studies* 69 (10): 658–668. DOI: [10.1016/j.ijhcs.2010.12.008](https://doi.org/10.1016/j.ijhcs.2010.12.008)
 - [J3] MARSDEN, G., I. LADIERA, T. REITMAIER, N. J. BIDWELL, & E. BLAKE. 2010. "Digital Storytelling in Africa." *International Journal of Computing* 9 (3): 257–265
- conference papers
- [C1] PEARSON, J., S. ROBINSON, T. REITMAIER, M. JONES, S. AHIRE, A. JOSHI, D. SAHOO, N. MARAVI, & B. BHIKNE. 2019. "StreetWise: Smart Speakers vs Human Help in Public Slum Settings." In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems: CHI '19*, 96:1–96:13. Glasgow, Scotland Uk: ACM. DOI: [10.1145/3290605.3300326](https://doi.org/10.1145/3290605.3300326)
 - [C2] ROBINSON, S., J. PEARSON, T. REITMAIER, S. AHIRE, & M. JONES. 2018. "Make Yourself at Phone: Reimagining Mobile Interaction Architectures With Emergent Users." In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems: CHI '18*. New York, NY: ACM. DOI: [10.1145/3173574.3173981](https://doi.org/10.1145/3173574.3173981)
 - [C3] PEARSON, J., S. ROBINSON, T. REITMAIER, M. JONES, A. JOSHI, C. PARAB, F. O. MOGOI, & S. JENSON. 2017. "Exploring the Use of the Physical Web with Resource-Constrained Communities." In *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems: CHI EA '17*, 1117–1125. New York, NY, USA: ACM. DOI: [10.1145/3027063.3053349](https://doi.org/10.1145/3027063.3053349)
 - [C4] SSOZI-MUGARURA, F., T. REITMAIER, A. VENTER, & E. BLAKE. 2016. "Enough with 'In-The-Wild'." In *Proceedings of the First African Conference on Human Computer Interaction: AfriCHI'16*, 182–186. New York, NY, USA: ACM. DOI: [10.1145/2998581.2998601](https://doi.org/10.1145/2998581.2998601)
 - [C5] BIDWELL, N. J., S. ROBINSON, E. VARTIAINEN, M. JONES, M. J. SIYA, T. REITMAIER, G. MARSDEN, & M. LALMAS. 2014. "Designing Social Media for Community Information Sharing in Rural South Africa." In *Proceedings of the Southern African Institute for Computer Scientists and Information Technologists Annual Conference: SAICSIT '14*, 104–114. New York, NY, USA: ACM. DOI: [10.1145/2664591.2664615](https://doi.org/10.1145/2664591.2664615)
 - [C6] BIDWELL, N. J., T. REITMAIER, & K. JAMPO. 2014. "Orality, Gender and Social Audio in Rural Africa." In *Proceedings of the 11th International Conference on the Design of Cooperative Systems: COOP'14*, edited by ROSSITTO, C., CIOLFI, L., MARTIN, D., & CONEIN, B., 225–241. Springer. DOI: [10.1007/978-3-319-06498-7_14](https://doi.org/10.1007/978-3-319-06498-7_14)
 - [C7] REITMAIER, T., P. BENZ, & G. MARSDEN. 2013. "Designing and Theorizing Co-Located Interactions." In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems: CHI '13*, 381–390. New York, NY, USA: ACM. DOI: [10.1145/2470654.2470709](https://doi.org/10.1145/2470654.2470709)
 - [C8] BIDWELL, N. J., T. REITMAIER, C. REY-MORENO, Z. RORO, M. J. SIYA, & B. DLUTU. 2013. "Timely Relations in Rural Africa." In *Proceedings of the 12th International Conference on Social Implications of Computers in Developing Countries: IFIP WG 9.4*, 92–107
 - [C9] REITMAIER, T., N. J. BIDWELL, M. SIYA, G. MARSDEN, & W. D. TUCKER. 2012. "Communicating in Designing an Oral Repository for Rural African Villages." In *Proceedings of IST-Africa: Regional Impact of Information Society Technologies in Africa: IST-Africa '12*. Dar es Salaam, Tanzania
 - [C10] REITMAIER, T. 2011. "She Looked Deep into Our Eyes': Reflections on Cross-Cultural Practice." In *Proceedings of the Indigenous Knowledge Technology Conference: Embracing Indigenous Knowledge Systems in a New Technology Design Paradigm: IKTC '11*, edited by BIDWELL, N. J. & WINSCHIERS-THEOPHILUS, H., 100–107. Windhoek, Namibia

- [C11] REITMAIER, T., N. J. BIDWELL, & G. MARSDEN. 2010. "Field Testing Mobile Digital Storytelling Software in Rural Kenya." In *Proceedings of the 12th International Conference on Human Computer Interaction with Mobile Devices and Services: MobileHCI '10*, 283–286. New York, NY, USA: ACM. DOI: [10.1145/1851600.1851649](https://doi.org/10.1145/1851600.1851649)
- [C12] BIDWELL, N. J., T. REITMAIER, G. MARSDEN, & S. HANSEN. 2010. "Designing with Mobile Digital Storytelling in Rural Africa." In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems: CHI '10*, 1593–1602. New York, NY, USA: ACM. DOI: [10.1145/1753326.1753564](https://doi.org/10.1145/1753326.1753564)
- [C13] MARSDEN, G., I. LADEIRA, T. REITMAIER, N. J. BIDWELL, & E. BLAKE. 2010. "Providing a Digital Voice for Storytellers in Africa." In *Kultur Und Informatik: Interaktive Systeme*, edited by SIECK, J., 101–132. Boizenburg, Germany: Verlag Werner Hülsbusch
- [C14] REITMAIER, T., & G. MARSDEN. 2009. "Bringing Digital Storytelling to the Mobile." In *Human-Computer Interaction – INTERACT 2009: Lecture Notes in Computer Science*, 750–753. 5726. Berlin / Heidelberg: Springer. DOI: [10.1007/978-3-642-03655-2_81](https://doi.org/10.1007/978-3-642-03655-2_81)
- theses
- [T1] REITMAIER, T. 2018. "Human-Centred Computer Architecture: Redesigning the Mobile Datastore & Sharing Interface." PhD Dissertation, Department of Computer Science, University of Cape Town
- [T2] REITMAIER, T. 2011. "Designing Digital Storytelling for Rural African Communities." Master's Thesis, Department of Computer Science, University of Cape Town
- workshops organized
- [W1] SULEMAN, H., M. DENSMORE, T. REITMAIER, et al. 2015. Towards a Strategic Agenda for Local Research in ICT for Development. Workshop at the *Southern African Institute for Computer Scientists and Information Technologists Annual Conference: SAICSIT '15*. Stellenbosch, South Africa, September 28
- [W2] HUSSEN, T. S., T. REITMAIER. 2015. Cape Town Satellite Workshop to the Researching for Change in a Globalising Asymmetric World Workshop at the *Critical Alternatives: 5th Decennial Aarhus Conference*, organized by BLAKE, E., I. BÜSKENS, & A. DEARDEN. Cape Town, South Africa, August 18
- workshop papers
- [W3] REITMAIER, T. 2013. "Dissolving Differences in Conceptions of Time: Lessons from ICT4D Research." In *Changing Perspectives of Time Workshop at CHI 2013*. Paris, France, April 25
- [W4] REITMAIER, T. 2013. "Refiguring the Natural in Natural User Interfaces." In *Proceedings of the 13th IFIP TC 13 International Conference on Human-Computer Interactions: INTERACT '13*. Cape Town, South Africa: Doctoral Consortium, September 3
- panels
- [P1] WALTON, M., N. J. BIDWELL, A. VENTER, T. REITMAIER. 2014. "Mobile Technologies and Society in South Africa: Towards Transdisciplinary Perspectives on Mobile Social Media", Panel Discussion at the *South African Communications Association 40th Annual Conference: SACOMM '14*, Potchefstroom, South Africa, October 1
- posters
- [P2] "Redesigning the Mobile Sharing Interface", poster presented at the *9th Microsoft Research PhD Summer School*, Cambridge, UK, July 1st, 2014
- [P3] "Taking Back our Digital Possessions: Redesigning the Mobile Datastore and Sharing Interface", poster presented at the *University of Cape Town Computer Science Open Evening*, November 13, 2014
- [P4] "Refiguring the Natural in Natural User Interfaces", poster presented at the *13th IFIP TC 13 International Conference on Human-Computer Interactions: INTERACT '13*, Cape Town, South Africa, September 4, 2013
- conference presentations
- [P5] "Making with Meaning: Exploring the Benefits of Makerspaces for People Living with Brain Injury", *South West Wales Brain Injury Group Conference*, Swansea, Wales, May 12, 2017
- [P6] "Enough with 'in-the-wild'", paper presentation for [C4] at the *African Conference for Human Computer Interaction – AfriCHI 2016*, Nairobi, Kenya, November 29, 2016

- [P7] “Designing and Theorizing Co-Located Interactions”, paper presentation for [C7] at the *Human Factors in Computing Systems Conference – CHI 2013*, Paris, France, April 27, 2013
- [P8] “‘She Looked Deep Into Our Eyes:’ Reflections on Cross-Cultural Practice”, paper presentation for [C10] at the *Indigenous Knowledge Technology Conference – IKTC 2011*, Windhoek, Namibia, November 2, 2011
- [P9] “Field-testing Mobile Digital Storytelling Software in Rural Kenya”, paper presentation for [C11] at the *Mobile Human-Computer Interaction Conference – MobileHCI 2010*, Lisbon, Portugal, September 10, 2010
- [P10] “Designing with Mobile Digital Storytelling in Rural Africa”, paper presentation for [C12] at *Human Factors in Computing Systems Conference – CHI 2010*, Atlanta, GA, USA, April 14, 2010

- invited talks
- [I1] “(Not) Designed in California: Engaging Emergent-Users in the Design of Future Energy Services”, *Centre for Energy Science, Indian Institute of Science Education and Research*, Pune, India, April 3, 2019
 - [I2] “Making with Meaning: Exploring the Benefits of Makerspaces for People Living with Brain Injury”, *Brain Injury Service Open Day, Morriston Hospital*, May 9, 2018
 - [I3] “New File Abstractions and Grammars of Interaction for the Mobile Datastore”, *UCT Seminar Series on ICT4D Research, University of Cape Town*, October 18, 2014.
 - [I4] “Redesigning the Mobile Datastore and Sharing Interface”, *Human Experience and Design (HxD) Group, Microsoft Research Cambridge UK*, September 22, 2014.
 - [I5] “An Academic Writing Workflow using Emacs, Zotero, pandoc, and Bib_{La}T_EX”, *UCT Seminar Series on ICT4D Research, University of Cape Town*, April 2, 2014.

supervising, teaching, & tutoring

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| students supervised | Zola Mahlaza & Jarvis Mutakha (April 2014 – November 2014)
Supervised and proposed Zola & Jarvis’ Honours research project on creating novel co-located mobile media experiences using Android phones and a Raspberry Pi Wifi Access Point. |
| guest lecturer | Swansea CSC301: Designing Renewable Energy Interfaces with Rural Rwandan Communities. Lecture on <i>Co-design Methods and Energy Interfaces</i> , 2019.

Swansea CSC306: Reactive Android Programming with RxJava2. Lecture on <i>Functional Reactive Mobile Application Development</i> , 2018.

Swansea CSC306: Reactive Android Programming with RxJava2. Lecture on <i>Functional Reactive Mobile Application Development</i> , 2017.

UCT CSC4000W: Computer Networks for Developing Regions. Lecture on <i>Co-Located Sharing Architectures</i> , 2015.

UCT CSC1016S: Computer Programming, Professionalism, & Ethics. Lecture on <i>Information & Communication Technologies for Development ICT4D</i> , 2013.

UCT CSC2002S: Mobile Application Development. Lecture on <i>Introduction to Mobile App Development on Android using the Eclipse IDE</i> , 2013.

UCT CSC1016S: Computer Programming, Professionalism, & Ethics. Lecture on <i>Information & Communication Technologies for Development ICT4D</i> , 2012. |
| tutor | UCT CSC2002S: Mobile Application Development. Tutor overseeing lab practicals on <i>Android Programming</i> , 2013. |

community service

- 2014 & 2015 **Graduate Student Coordinator, UCT ICT4D Centre, Department of Computer Science**
Official elected liaison between ICT4D Centre staff and graduate students.
- 2015 **Creative Coders Tutor, Ikamva Youth, Khayelitsha**
Teaching secondary school students from the Khayelitsha Township basic programming, graphic, and animation concepts using Processing and JavaScript on PCs and Tablets.

academic service

- chairing **SIGCHI Across Borders Initiative 2018 Local-Chair**
Collaborated with Dr. Susan Dray (SIGCHI VP) to broaden participation in ACM SIGCHI.
- MobileHCI 2017 Late Breaking Work Co-Chair**
Poster track of MobileHCI 2017.
- AfricHI 2016 Gumzo Track Co-Chair**
The Gumzo track seeks to broaden participation and open new dialogues for HCI in Africa through Multimedia and Oral Presentations as well as written contributions.
- Interact 2013 Student Volunteer Co-Chair**
Responsible for 20 student volunteers.
- volunteering **ICTD 2013 Student Volunteer & Local Research Showcase Co-organizer**
Responsible for the local research showcase where over local 50 students and NGOs showcased their work.
- reviewing Human Factors in Computing Systems Conference CHI 2014, 2015
Mobile and Ubiquitous Media Conference MUM 2015
Desiging Interactive Systems Conference DIS 2012, 2014
Mobile Human Computer Interactions Conference MobileHCI 2012, 2013
IEEE Pervasive Computing Journal 2013
Human-Computer Interaction Journal (Special Issue on Transnational HCI) 2012
Indigenous Knowledge Technology Conference IKTC 2011
- memberships Association for Computing Machinery (ACM)
ACM Special Interest Group in Human-Computer Interaction (ACM SIGCHI)

personal data

- languages English (native fluency), German (native fluency), French (basic)
- nationalities Germany, USA

computer & programming expertise

Operating Systems: Mac OS X, Windows, Linux

Programming Languages: Kotlin, Java, C#, JavaScript, Python, F#, Haskell, C++.

Mobile App Development: Android, Windows Phone 8/10, Xamarin

Embedded Computing: Raspberry Pi, Arduino, .NET Gadgeteer

Editors / IDEs: Emacs, Vim / Visual Studio, Android Studio, IntelliJ

Cloud Environments / Technologies: Azure App Services & Storage, Amazon Web Services EC2 & S3 / Docker, Traefik

Web / Networking: nginx, Ktor, Node.js, ASP.NET / Iptables, SSH

Databases: PostgreSQL, SQLite, MySQL, CouchDB, MongoDB, Linq, JSON, XML

Version Control: git

Graphics / Publishing: Inkscape, GIMP / InDesign

Office: Microsoft Office, L^AT_EX