

Kurtis Heimerl

240 CSE2
University of Washington,
Seattle, WA 98115

+1 (206) 659-5878
kheimerl@cs.washington.edu
<http://kurti.sh>

Interests

My research builds community-based systems, primarily for connecting marginalized communities to the Internet but also helping wildlife conservation and network measurement.

Academic

University of Washington Associate Professor (2022) Computer Networks, HCI, and ICTD	2016
University of California, Berkeley Postdoctoral Researcher Advisors: Eric Brewer and Tapan Parikh	2014
University of California, Berkeley Doctor of Philosophy, Computer Science Thesis: <i>Community Cellular Networks</i> Advisors: Eric Brewer and Tapan Parikh	2013
University of California, Berkeley Master of Science, Computer Science Thesis: <i>Metamouse: Improving Sharing of Existing Educational Applications</i>	2009
University of Washington Bachelor of Science, Computer Engineering (Magna Cum Laude)	2007

Current Research

Community Cellular Networks

Investigating small-scale, locally owned cellular networks. Assisted in the development of open-source SDR-based solutions, including OpenBTS, Osmocom, OpenAirInterface, and Open5GS. Extended the platforms to support integration with telecoms as well as distributed operation. Deployments in Indonesia, Philippines, and Mexico. Future deployments planned in Tacoma, Canada, and Peru.

Ecological Sustainability

Working with the Ol Pejeta conservancy to build text-based tools for community engagement. Deployments ongoing.

Data Science for Social Good

Partnering with Grab Holdings, the largest ride-sharing company in South-East Asia to explore the use of their platform to positively impact marginalized populations in covered countries.

Network Security

Exploring uptake of secure messaging in “the long tail” of the Internet.

Awards

Best Overall Proof of Concept Category at IEEE Connecting the Unconnected Challenge	2022
UW College of Engineering “Early Career” Diamond Award	2018
MIT Technology Review “35 under 35”	2014
ISIF Asia Community Network Award	2018
Best Paper at PETS 2021: Oblivious DNS over HTTPS (ODoH): A Practical Privacy Enhancement to DNS	2021
Honorable Mention at COMPASS 2021: “How’s Shelby the Turtle today?” Strengths and Weaknesses of Interactive Animal-Tracking Maps for Environmental Communication	2021
Best Paper at COMPASS 2020: Can Phones Build Relationships? A Case Study of a Kenyan Wildlife Conservancy’s Community Development	2020
Diversity and Inclusion Award at CSCW 2019: Trust and Technology Repair Infrastructures in the Remote Rural Philippines: Navigating Urban-Rural Seams	2019

Best Student Paper at ASSETS 2019: Deep Learning for Automatically Detecting Sidewalk Accessibility Problems Using Streetscape Imagery	2019
Community Award at NSDI 2019: Scaling Community Cellular Networks with CommunityCellularManager	2019
Best Paper at DySPAN 2014: GSM Whitespaces: An Opportunity for Rural Cellular Service	2014
Community Award at NSDI 2013: Expanding Rural Cellular Networks with Virtual Coverage	2013
Best Paper at CHI 2012: Communitysourcing: Engaging Local Crowds to Perform Expert Work Via Physical Kiosks	2012
NSF Graduate Research Fellowship	2008
Bob Bandes Memorial Teaching Award (Honorable Mention)	2005

Selected Press

Building a “cell tower in a box” to connect some of the billions of people lacking internet access GeekWire	2018
Facebook Hires Founders Of Cellular-Network-In-A-Box Company Endaga Tech Crunch	2015
Kurtis Heimerl: 35 Innovators under 35 MIT Technology Review	2014
New Eavesdropping Equipment Sucks All Data Off Your Phone Newsweek	2014
Cellular’s Open Source Future is Latched to Tallest Tree in the Village Ars Technica	2014

Funding

PIT-UN: Expanding Public Capacity for Community Cellular Networks Follow-on funding from 2020 to continue scaling educational material to youth and others. Joint with Jason Young and Emma Slager, and others.	\$90k 2021
NSF: SCC-IRG Track 2: Innovations for Community-Held Infrastructure Developing community-led edge infrastructure with local partners. Joint with Jason Young, Emma Slager, and others.	\$1.5M 2021
PIT-UN: Co-developing New Access Solutions for Federated Community Networks Developed and deployed novel core network and teaching infrastructure with local partners.	\$90k 2020
Facebook: Enabling Small-Scale Cooperative Cellular Networks for Distributed Internet Access Development and deployment of a distributed, decentralized cellular network in Tacoma.	\$75k 2020
NSF: Exploring The Benefits and Challenges of Community-Powered Connectivity In The New Arctic PI of a Navigating the New Arctic (NNA) planning grant to assist the Internet Society in the deployment of a Community Network among an Inuvialuit community in Canada’s Northwest Territories. Joint w/ Jason Young, Spencer Sevilla.	\$250k 2020
NSF: Building a Partnership with Grab for Cross-ASEAN Regional Urban Insights PI of a Smart and Connected Communities (S&CC) EAGER grant to support the development of a data science for social good initiative with Grab, the largest ride-sharing company in South-East Asia. Joint with Tim Althoff.	\$300k 2020
Facebook: Access, Relevance, and Perception of Internet-based Technologies among Rural and Urban Americans Partner with Co-PI Katharina Reinecke on a Lab-in-the-Wild study on urban and rural experiences with common mobile applications.	\$50k 2019
Mozilla: Emergency LTE & Repairable Community Cellular Networks Won awards for the NSF’s Wireless Innovation for a Networked Society (WINS) challenges to develop an emergency focused LTE solution and more repairable community networks.	\$140k 2018
Anonymous: Individual Donations Catch-all for anonymous donations by individuals, companies, and others.	\$800k 2016-

Industry Experience

Facebook Endaga team and IP joined Facebook to continue their rural access initiatives.	Menlo Park, CA 2015-2017
Endaga, Inc Founder/CEO, focused on developing simple cellular networks that can be operated by anyone. Raised 1.2M seed round from investors such as Mitch Kapor, Jeff Hammerbacher, and Sanjit Biswas. Joined Facebook August 2015.	Oakland, CA 2014-2015
Range Networks Community Manager/Developer for open-source OpenBTS release.	San Francisco, CA 2011-2014
Microsoft Research India Intern assisting with SMS and voice technologies for the Digital Study Hall distance learning project.	Bangalore, India 2007
Google.com Intern developing additions to the Hadoop map-reduce framework.	Mountain View, CA 2007
Amazon.com Intern creating scalable, secure, and extensible service-oriented architecture components.	Seattle, WA 2005,2006

Peer-reviewed Conference or Journal Publications

- Telechain: Bridging Telecom Policy and Blockchain Practice**
Sudheesh Singanamalla, Apurv Mehra, Nishanth Chandran, Himanshi Lohchab, Seshanuradha Chava, Asit Kadayana, Sunil Bajpai, **Kurtis Heimerl**, Richard Anderson, Satya Lokam. *The Fifth ACM Conference on Computing & Sustainable Societies (ACM COMPASS)* 2022
- A Value-added IoT Service for Cellular Networks using Federated Learning**
Adnan Noor Mian, Syed Waqas Haider Shah, Sanaullah Manzoor, Anwar Said, **Kurtis Heimerl**, Jon Crowcroft. *Computer Networks* 2022
- Oblivious DNS over HTTPS (ODOH): A Practical Privacy Enhancement to DNS**
Sudheesh Singanamalla, Suphanat Chunhapanaya, Jonathan Hoyland, Marek Vavruša, Tanya Verma, Peter Wu, Marwan Fayed, **Kurtis Heimerl**, Nick Sullivan, and Christopher Wood. *The 21st Privacy Enhancing Technologies Symposium (PETS)* 2021 (**Best Paper**)
- "How's Shelby the Turtle today" Strengths and Weaknesses of Interactive Animal-Tracking Maps for Environmental Communication** Matt Ziegler, Michael Quinlan, Zage Strassberg-Phillips, Manasi Shah, Lauren Vreeken, Karen Goodfellow, Jes Lefcote, Richard Anderson, and **Kurtis Heimerl**. *The 4th ACM SIGCAS Conference on Computing and Sustainable Societies (COMPASS)* 2021 (**Honorable Mention**)
- Network Capacity as Common Pool Resource: Community-Based Congestion Management in a Community Network**
Matthew Johnson, Esther Jang, Frances O'Rourke, Rachel Ye, **Kurtis Heimerl**. *Proceedings of the ACM on Human-Computer Interaction: Vol. 5, No CSCW1, Article 61* 2021
- Whale Watching in Inland Indonesia: Analyzing a Small, Remote, Internet-Based Community Cellular Network**
Matthew Johnson, Jenny Liang, Michelle X. Lin, Sudheesh Singanamalla, **Kurtis Heimerl**. *Proceedings of the Web Conference (WWW)* 2021
- Accept the Risk and Continue: Measuring the Long Tail of Government https Adoption**
Sudheesh Singanamalla, Esther Jang, Richard Anderson, Tadayoshi Kohno, **Kurtis Heimerl**. *The 20th ACM Internet Measurement Conference (IMC)* 2020
- Can Phones Build Relationships? A Case Study of a Kenyan Wildlife Conservancy's Community Development**
Matt Ziegler, Morgan Wack, Nancy Ingutia, Ian Muiruri, Nicholas Njogu, Kennedy Muriithi, William Njoroge, James Long, and **Kurtis Heimerl**. *The Third ACM Conference on Computing & Sustainable Societies (COMPASS)* 2020 (**Best Paper**)
- Connecting Isolated Communities: Quantitative Evidence on the Adoption of Community Cellular Networks in the Philippines** Niall Keleher, Mary Claire Barela, Joshua Blumenstock, Cedric Festin, Matthew Podolsky, Erin Troland, Arman Rezaee, and **Kurtis Heimerl**. *Eleventh International Conference on Information and Communication Technologies and Development (ICTD)* 2020
- Trust and Technology Repair Infrastructures in the Remote Rural Philippines: Navigating Urban-Rural Seams**
Esther Han Beol Jang, Philip Garrison, Ronel Vincent Vistal, Maria Theresa D. Cunanan, Mia Theresa Perez, Philip Martinez, Matthew William Johnson, John Andrew Evangelista, Syed Ishtiaque Ahmed, Josephine Dionisio, Mary Claire Aguilar Barela, **Kurtis Heimerl**. *Proceedings of the ACM on Human-Computer Interaction: Vol. 3, Issue CSCW, Article 99* 2019
- Deep Learning for Automatically Detecting Sidewalk Accessibility Problems Using Streetscape Imagery**
Galen Weld, Esther Jang, Aileen Zeng, Anthony Li, **Kurtis Heimerl**, Jon Froehlich. *21st International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS)* 2019 (**Best Student Paper**)
- Experiences: Design, Implementation, and Deployment of CoLTE, a Community LTE Solution**
Spencer Sevilla, Matthew Johnson, Pathirat Kosakanchit, Jenny Ting Liang, **Kurtis Heimerl**. *The 25th Annual International Conference on Mobile Computing and Networking (MobiCom)* 2019

[An Assessment of SMS Fraud in Pakistan](#)

Fahad Pervaiz, Rai Shah Nawaz, Muhammad Umer Ramzan, Maryem Zafar Usmani, Shrirang Mare, **Kurtis Heimerl**, Faisal Kamiran, Richard Anderson, Lubna Razaq. *The Second ACM Conference on Computing & Sustainable Societies (COMPASS)* 2019

[Scaling Community Cellular Networks with CommunityCellularManager](#)

Shaddi Hasan, Mary Claire Barela, Matthew Johnson, Eric Brewer, **Kurtis Heimerl**. *16th USENIX Symposium on Networked Systems Design and Implementation (NSDI)* 2019 (**Community Award**)

[Fresh Insights: User Research Towards a Market Information Service for Bihari Vegetable Farmers](#)

Matthew Ziegler, Lokesh Garg, Shailesh Tiwary, Aditya Vashistha, **Kurtis Heimerl**. *Tenth International Conference on Information and Communication Technologies and Development (ICTD)* 2019

[Designing Sustainable Rural Infrastructure Through the Lens of OpenCellular](#)

Kashif Ali, **Kurtis Heimerl**. *Communications of the ACM*, August 2018

[ThinSIM-based Attacks on Mobile Money Systems](#)

Rowan Phipps, Shrirang Mare, Peter Ney, Jennifer Rose Webster, **Kurtis Heimerl**. *First ACM conference on Computing & Sustainable Societies (COMPASS)* 2018

[Crowdsourcing Rural Network Maintenance and Repair via Network Messaging](#)

Esther Jang, Mary Claire Barela, Matt Johnson, Philip Martinez, Cedric Festin, Maragaret Lynn, Josephine Dionisio, **Kurtis Heimerl**. *ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)* 2018

[An Investigation of Phone Upgrades in Remote Community Cellular Networks](#)

Kushal Shah, Philip Martinez, Emre Tepedelenlioglu, Shaddi Hasan, Cedric Angelo Festin, Joshua Blumenstock, Jo Dionisio, **Kurtis Heimerl**. *International Conference on Information and Communication Technologies and Development (ICTD)* 2017

[Towards Building a Community Cellular Network in the Philippines: Initial Site Survey Observations](#)

Mary Claire Barela, Mae Sincere Blanco, Philip Martinez, Miguel Carlo Purisima, **Kurtis Heimerl**, Matthew Podolsky, Eric Brewer, Cedric Angelo Festin. *International Conference on Information and Communication Technologies and Development (ICTD)* 2016

[A Longitudinal Study of Local, Sustainable, Small-Scale Cellular Networks](#)

Kurtis Heimerl, Shaddi Hasan, Kashif Ali, Eric Brewer, Tapan Parikh. *Information Technologies & International Development (ITID)* 2015

[Analysis of Smartphone Adoption and Usage in a Rural Community Cellular Network](#)

Kurtis Heimerl, Anuvind Menon, Shaddi Hasan, Kashif Ali, Eric Brewer, Tapan Parikh. *International Conference on Information and Communication Technologies and Development (ICTD)* 2015

[Rescue Base Station](#)

Ibrahim Ghaznavi, **Kurtis Heimerl**, Umar Muneer, Abdullah Hamid, Kashif Ali, Tapan Parikh, Umar Saif. *5th Annual ACM Symposium on Computing for Development (DEV)* 2014

[GSM Whitespaces: An Opportunity for Rural Cellular Service](#)

Shaddi Hasan, **Kurtis Heimerl**, Kate Harrison, Kashif Ali, Anant Sahai, Eric Brewer. *IEEE Dynamic Spectrum Access Networks (DySPAN)* 2014 (**Best Paper Award**)

[An Experiment in Reducing Cellular Base Station Power Draw With Virtual Coverage](#)

Kurtis Heimerl, Shaddi Hasan, Kashif Ali, Tapan Parikh, Eric Brewer. *4th Annual ACM Symposium on Computing for Development (DEV)* 2013

[Local, Sustainable, Small-Scale Cellular Networks](#)

Kurtis Heimerl, Shaddi Hasan, Kashif Ali, Eric Brewer, Tapan Parikh. *International Conference on Information and Communication Technologies and Development (ICTD)* 2013

[Expanding Rural Cellular Networks with Virtual Coverage](#)

Kurtis Heimerl, Kashif Ali, Joshua Blumenstock, Brian Gawalt, Eric Brewer. *10th USENIX symposium on Networked Systems Design and Implementation (NSDI)* 2013 (**Community Award**)

[Convergence of Position Auctions under Myopic Best-Response Dynamics](#)

Matthew Cary, Aparna Das, Benjamin Edelman, Ioannis Goitis, **Kurtis Heimerl**, Anna Karlin, Scott Kominers, Claire Mathieu, Michael Schwarz. *Transactions on Economics and Computation (TEAC)* 2013

[Communitysourcing: Engaging Local Crowds to Perform Expert Work Via Physical Kiosks](#)

Kurtis Heimerl, Brian Gawalt, Kuang Chen, Tapan Parikh, Björn Hartmann. *Annual conference on Human Factors in Computing Systems (CHI)* 2012 (**Best Paper Award**)

[A Case Study on Designing Interfaces for Multiple Users in Developing Regions](#)

Kurtis Heimerl, Janani Vasudev, Kelly Buchanan, Tapan Parikh, Eric Brewer. *1st Annual ACM Symposium on Computing for Development (DEV)* 2010

[Metamouse: Improving Multi-user Sharing of Existing Educational Applications](#)

Kurtis Heimerl, Janani Vasudev, Kelly Buchanan, Tapan Parikh, Eric Brewer. *International Conference on Information and Communication Technologies and Development (ICTD)* 2010

[Greedy Bidding Strategies for Keyword Auctions](#)

Matthew Cary, Aparna Das, Benjamin Edelman, Ioannis Giotis, **Kurtis Heimerl**, Anna Karlin, Claire Mathieu and Michael Schwarz. *ACM Conference on Electronic Commerce (EC)* 2007

Book Chapters

[Connecting Communities Through Mobile Networks: A Case Study of Implementing Community Cellular Networks in the Philippines](#)

Mary Claire Barela, Maria Theresa Cunanan, Cedric Angelo Festin, **Kurtis Heimerl**, Esther Jang, Matthew William Johnson. *Introduction to Development Engineering* 2022

[Connecting Communities through Mobile Networks: The VBTS-CoCoMoNets Project](#)

Mary Claire Barela, Josephine Dionisio, **Kurtis Heimerl**, Manuel Victor Sapitula, and Cedric Angelo Festin. *Global Information Society Watch 2018: Community Networks* 2018

[Building Community LTE Networks with CoLTE](#)

Spencer Sevilla, Pathirat Kosakanchit, Matthew Johnson, **Kurtis Heimerl**. *The community network manual : how to build the Internet yourself* 2018

Workshop Papers

[When Borders Blur - Overcoming Political Limits with Computing in Truly Global Societies](#)

Emmanuel Azuh Mensah, Sudheesh Singanamalla, Richard Anderson, and **Kurtis Heimerl**. *Proceedings of the Workshop on Computing Within Limits (LIMITS)* 2021

[Title: Hanging Gardens of Babylon: Reframing Urban Agriculture as an Opportunity for Social Engagement](#)

Joseph Breda, Esther Jang, **Kurtis Heimerl**, and Shwetak Patel. *Self-Sustainable CHI* 2020

[dLTE: Building a more WiFi-like Cellular Network \(Instead of the Other Way Around\)](#)

Matthew Johnson, Spencer Sevilla, Esther Jang, **Kurtis Heimerl**. *HotNets 2018: Seventeenth ACM Workshop on Hot Topics in Networks* 2018

[Unplanned Obsolescence: Hardware and Software After Collapse](#)

Esther Jang, Matt Johnson, Edward Burnell, **Kurtis Heimerl**. *Proceedings of the 2017 Workshop on Computing Within Limits* 2017

[The Village Base Station](#)

Kurtis Heimerl, Eric Brewer. *4rd ACM Workshop on Networked Systems for the Developing World (NSDR)*, 2010

[Message Phone: A User Study and Analysis of Asynchronous Messaging in Rural Uganda](#)

Kurtis Heimerl, RJ Honicky, Eric Brewer, Tapan Parikh. *3rd ACM Workshop on Networked Systems for the Developing World (NSDR)*, 2009

[Metamouse: Multiple Mice for Legacy Applications](#)

Kurtis Heimerl, Divya Ramachandran, Joyojeet Pal, Eric Brewer, Tapan Parikh. *Proceedings of the 27th international conference extended abstracts on Human factors in computing systems (CHI Extended Abstracts)* 2009

Demonstrations

[DEMO: CoLTE, An All-in-One Community LTE Network](#)

Spencer Sevilla, Matthew Johnson, Pathirat Kosakanchit, Jenny Ting Liang, **Kurtis Heimerl**. *The 25th Annual International Conference on Mobile Computing and Networking (MobiCom)* 2019

[Poster and Demonstration of Expanding Rural Cellular Networks with Virtual Coverage](#)

Kurtis Heimerl, Kashif Ali, Joshua Blumenstock, Brian Gawalt, Eric Brewer. *Demo at 10th USENIX symposium on Networked Systems Design and Implementation (NSDI)* 2013

[Communitysourcing: Engaging Local Crowds to Perform Expert Work Via Physical Kiosks](#)

Kurtis Heimerl, Brian Gawalt, Kuang Chen, Tapan Parikh, Björn Hartmann. *Interactivity at the annual conference on Human Factors in Computing Systems (CHI)* 2012

[Metamouse: Multiple Mice for Legacy Applications](#)

Kurtis Heimerl, Divya Ramachandran, Joyojeet Pal, Eric Brewer, Tapan Parikh. *Demo at International Conference on Information and Communication Technologies and Development (ICTD)* 2009

Technical Reports

[How Users Understand Cellular Infrastructure](#)

Kurtis Heimerl, Tapan Parikh. *University of California, Berkeley Technical Report No. UCB/EECS-2012-42*

[Transforming Community-based Healthcare with CommScape](#)

Kuang Chen, **Kurtis Heimerl**, Tapan Parikh, Christine Robson and Beth Trushkowsky. *University of California, Berkeley Technical Report No. UCB/EECS-2009-155*

[Enabling Innovation Below the Communication API](#)

Ganesh Ananthanarayanan, **Kurtis Heimerl**, Matei Zaharia, Michael Demmer, Teemu Koponen, Arsalan Tavakoli, Scott Shenker, Ion Stoica. *University of California, Berkeley Technical Report UCB/EECS-2009-141*

Teaching Experience

University of Washington Developed a community networking capstone course as part of PIT-UN grant.	Seattle, WA 2021
University of Washington Lead instructor of CSE461 and CSEP 561 Computer Networks and CSE 550, Computer Systems. Led classes of over eighty students and developed new course content.	Seattle, WA 2017, 2018, 2019, 2020
University of Washington Lead instructor of CSE599 and CSEP 599 Information Communication Technologies and Development (ICTD), CSE580 Computing for Social Good, and CSE 599 Computing for Conservation. Created the courses, including the syllabus and grading content.	Seattle, WA 2016, 2017, 2020
University of California, Berkeley Summer Undergraduate Program in Engineering Research at Berkeley (SUPERB) Mentor for Cristine Dierk working on communitysourcing and Mark Watt working on cellular security	Berkeley, CA, 2013
University of California, Berkeley Lead Instructor of undergraduate class CS-194-22: Cellphones as a computing platform	Berkeley, CA 2012
University of California, Berkeley Summer Undergraduate Program in Engineering Research at Berkeley (SUPERB) Mentor for Kehontas Rowe from Mills College working on communitysourcing.	Berkeley, CA, 2011
University of California, Berkeley Graduate Student Instructor of graduate class CS-294-35: Cellphones as a computing platform under Professor Eric Brewer.	Berkeley, CA 2010
University of Washington Teacher's assistant for operating systems courses under Professor Ed Lazowska	Seattle, WA 2006-2007
University of Washington Teacher's assistant for introductory computer programming courses under Professor Hal Perkins and Lecturer Stuart Reges.	Seattle, WA 2005

Academic Service

Program Committee Co-Chair: LIMITS	2023
Program Committee Co-Chair: ACM COMPASS	2021
Demos Chair: ACM ICTD	2019
Notes Chair: ACM COMPASS	2018
Program Committee: ACM CoNext	2022
Program Committee: USENIX NSDI	2022
Program Committee: ACM CSCW	2021,2022
Program Committee: ACM MobiSYS	2020
Program Committee: ACM CHI	2020
Program Committee: ACM COMPASS	2018,2019,2020,2021,2022
Program Committee: ICTD	2013, 2015, 2016, 2017,2019,2020,2021,2022
Program Committee: ACM/IEEE Symposium on Edge Computing	2019, 2020
Program Committee: ACM DEV	2014,5
Program Committee: HotMobile	2016
Program Committee: CHI Work-in-Progress	2013, 2014

Selected Presentations

- A Conversation on Networking for the Social Good**
SIGCOMM, August 2020, New York, New York, USA
- Technologies for Decentralized Urban Community Cellular Networks**
IETF Global Alliance For Internet For All (GAIA) Working Group, July 2019, Montreal, Quebec, Canada
- Community Networking @ UW**
ISAT SNAP DARPA Workshop, April 2019, Berkeley, California, USA
- Expanding Cellular Coverage with Community Networks**
Catholic Relief Services Webinar, September 2017, Online

Community Cellular Networks*Asia Institute of Technology Networking Seminar, July 2017, Bangkok, Thailand***Community Cellular Networks***GSM Association Lunch, June 2017, London, UK***Community Cellular Manager***OpenCellular Workshop, June 2017, Nairobi, Kenya***Expanding Cellular Coverage with Community Networks***NYC Cellular Class, February 2017, New York, New York, USA***Community Cellular Manager***TIP Summit, November 2016, Menlo Park, California, USA***Community Cellular Networks: Infrastructure for Financial Inclusion***Evidence to Action, May 2016, San Francisco, California, USA***Community Cellular Networks***Liberation Technology Seminar, October 2015, Palo Alto, California, USA***Community Cellular Networks***Royal Holloway University Seminar, April 2015, Egham, UK***Community Cellular Networks***University of Indonesia Networks Seminar, March 2015, Jakarta, Indonesia***Community Cellular Networks***Rightscon Manila, March 2015, Manila, Philippines***Community Cellular***Indonesian Broadcasting Expo (IBX) October 2014, Bandung, Indonesia***Community Cellular***Jagongan Media Rakyat (JMR) October 2014, Jogjakarta, Indonesia***GSM White Spaces: An Opportunity for Rural Coverage***New York University, September 2014, NYC, NY***Community Cellular Networks***MIT D-Lab, September 2014, Boston, MA***Building Community Cellular Networks With Endaga***EmTech September 2014, Boston, MA***Building Community Cellular Networks With Endaga***USAID Frontiers in Development September 2014, Washington, DC***Technology and Infrastructure for Developing Regions***Facebook/Internet.org, July 2014, Palo Alto, CA***Community Cellular Networks in Rural Papua, Indonesia***Center for Southeast Asia Studies, February 2014, Berkeley, California***Building and Running Community Cellular Networks with OpenBTS***IEEE Engineering For Change Webinar, November 2013, Broadcast Online***Technology in Delivering Social Impact***Social Impact Speaker Series, University of California, Berkeley, November 2013, Berkeley, California, USA***Community Cellular Networks***Google, October 2013, Mountain View, CA, USA***Community Cellular Networks***Facebook, October 2013, Menlo Park, CA, USA***The Village Base Station: Community Cellular Radio***Pakistan-ICTD Workshop, Lahore University of Management Sciences, January 2013, Lahore, Pakistan***Mobile Security Survival Guide: What Every Activist and Rights Defender Needs to Know***Google Internet at Liberty, June 2012, Washington DC, USA***Communitysourcing: Engaging Local Crowds to Perform Expert Work Via Physical Kiosks***BiD Seminar, University of California, Berkeley, April 2012, Berkeley, California, USA***Introduction to OpenBTS/hands-on hacking***Lookout Mobile Security, March 2012, San Francisco, California, USA***The Evil Telco***OpenBTS HackDay - the Open Mobile Network, June 2011, New York, New York, USA***MetaMouse: Improving the Sharing of Existing Applications***CITRIS Talk, University of California, Berkeley, March 2010, Berkeley, California, USA*

References

Eric Brewer

Professor, Computer Science, University of California, Berkeley
brewer@eecs.berkeley.edu

Tapan Parikh

Associate Professor, Cornell Tech
tapan@represent.org

Richard Anderson

Professor, Computer Science, University of Washington
anderson@cs.washington.edu

Bill Thies

Researcher, Microsoft Research India
thies@microsoft.com

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<http://kurti.sh/cv.pdf>