

Robert Soden

CURRICULUM VITAE // JANUARY 2019

PhD Candidate
Department of Computer Science
University of Colorado Boulder

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RESEARCH AREAS

Crisis Informatics, human-computer interaction (HCI), computer supported cooperative work (CSCW), infrastructure studies, science and technology studies (STS), sustainable HCI, participatory sensing, critical data studies, civic technology

RESEARCH METHODS

Ethnography, design research, public participation, system building and evaluation

EDUCATION

Ph.D., Computer Science 2019 (anticipated)
University of Colorado Boulder

Dissertation:

Crisis Informatics in the Anthropocene: Disasters as Matters of Care & Concern

Committee:

Leyasia Palen (chair), Lilly Irani, Jed Brubaker, Joe Bryan, Clayton Lewis, Ken Anderson

Master of Arts, Natural Resources and Sustainable Development 2007
American University, Washington DC

Bachelor of Arts, Political Science 2003
Bachelor of Arts, History
University of Illinois Chicago, Chicago, IL

PROFESSIONAL EXPERIENCE

University of Colorado Boulder 8/2013 – Present
Department of Computer Science
Graduate Research Assistant
Teaching Assistant for Social Computing (Spring 2014)

Stanford University 9/2016 – 12/2017
Civil and Environmental Engineering
Visiting Adjunct Lecturer

Courses Taught:

International Development and Disaster Risk (Fall 2016)

Topics in Disaster Resilience Research (Fall 2016, Winter 2017, Spring 2017, Fall 2017)

Grants Awarded:

NSF EAGER (\$100,000), Global Partnership for Sustainable Development (\$250,000)

World Bank Global Facility for Disaster Reduction and Recovery Innovation Lab Senior Disaster Risk Management Consultant	3/2011 – Present
Development Seed Lead Software Developer	3/2008 – 12/2010
American University School of International Service Teaching Assistant <i>Course:</i> International Development and the Environment (Online, Summer 2005)	6/2005 – 8/2005
GRANTS, AWARDS AND HONORS	
Best Paper Honorable Mention CSCW 2018	November 2018
Visiting Student Researcher University of California, Berkeley Center for Science, Technology, Medicine & Society	January 2018
Global Partnership for Sustainable Development Data Innovation Grant \$250,000 - Machine Learning, Computer Vision, Tech Ethics in Disasters	December 2017
Best Paper Honorable Mention CHI 2017	May 2017
National Science Foundation EAGER Grant \$100,000 – Crowdsourcing for Earthquake Damage Assessment	August 2016
Graduate Certificate in Critical Theory CU Boulder Department of German & Slavic Language & Literature	May 2016
Best Student Paper Nominee ISCRAM 2015	May 2015
Best Student Paper ISCRAM 2014	May 2014
CU Research Assistant Award Department of Computer Science University of Colorado Boulder	April 2014
World Bank Vice Presidential Unit (VPU) Team Award Open Data for Resilience Initiative, Caribbean	April 2014

PUBLICATIONS

Book Chapters

Soden, R. and Palen, L. (2019). The social life of disaster information: Cultivating resources for emergent information infrastructures in Nepal. In Eric Welch (Ed.) *Research Handbook on E-Government*. Edward Elgar. *Forthcoming*.

Journal Articles

Anderson, J., **Soden, R.**, Keegan, B., Palen, L., Anderson, K. (2018). The Crowd is the Territory: Assessing Quality in Peer-Produced Spatial Data During Disasters. *International Journal of Human Computer Interaction*. Taylor and Francis.

Lallemant, D., **Soden, R.**, Rubinyi, S., Loos, S., Barns, K., Bhattacharjee, G. (2017). Post-disaster damage assessments as catalysts for recovery: A look at the assessments conducted in the wake of the 2015 earthquake in Nepal. *Earthquake Spectra*. Earthquake Engineering Research Institute.

Archival, Peer-Reviewed Conference Papers

Soden, R., Kauffman, N. (2019). Infrastructuring the Imaginary: How Sea-level Rise Comes to Matter in The San Francisco Bay Area. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. *Forthcoming*.

Soden, R., Lord, A. (2018). Mapping Silences, Reconfiguring Loss: Practices of Damage Assessment & Narratives of Repair in Post-Earthquake Nepal. In *Proceedings of the 21st ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW)*. **Best Paper Honorable Mention. (25% acceptance rate)**.

Soden R., Palen, L. (2018). Informing Crisis: Expanding Critical Perspectives in Crisis Informatics. In *Proceedings of the 21st ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW)*. **(25% acceptance rate)**.

Dailey, D., **Soden, R.**, Lalone, N. (2018). Crisis Informatics for Everyday Analysts: A Design Fiction Approach to Social Media Best Practices. In *Proceedings of the 2018 International Conference on Supporting Group Work (GROUP)*. ACM.

Soden, R., Sprain, L., Palen, L., (2017). Thin Grey Lines: Confrontations With Risk on Colorado's Front Range. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 2042-2053). ACM. **Best Paper Honorable Mention. (25% acceptance rate)**.

Kogan, M., Anderson, J., **Soden, R.**, Anderson, K., Palen, L. (2016). Collaboration in OpenStreetMap: A Network Analysis of Two Humanitarian Events. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 2783-2795). ACM. **(23% acceptance rate)**.

Soden, R., Palen, L. (2016). Infrastructure in the Wild: What Mapping in Post-Earthquake Nepal Reveals about Infrastructural Emergence. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 2796-2807). ACM. **(23% acceptance rate)**.

Anderson, J., **Soden, R.**, Anderson, K., Kogan, M., Palen, L. (2016). EPIC-OSM: A Software Framework for OpenStreetMap Data Analytics. *Proceedings of the Hawaii International Conference on System Sciences (HICSS)*(pp. 5468-5477). IEEE.

Soden, R., Palen, L., Chase, C., Deniz, D., Arneson, E., Sprain, L., Goldstein, B., Liel, A., Javernick-Will, A., Dashti, S. (2015). The Polyvocality of Resilience: Discovering a Research Agenda through Interdisciplinary Investigation and Community Engagement. In *Proceedings of the Information Systems for Crisis Response and Management (ISCRAM)*. **Best Student Paper Nomination.**

Palen, L., **Soden, R.,** Anderson, J., Barrenechea, M (2015). Success & Scale in a Data-Producing Organization: The Socio-Technical Evolution of OpenStreetMap in Response to Humanitarian Events. In *Proceedings of the ACM 2015 Conference on Human Factors in Computing Systems* (pp, 4113-4122). ACM. **(23% acceptance rate).**

Soden, R., Palen, L. (2014). From Crowdsourced Mapping to Community Mapping: The Post Earthquake Work of OpenStreetMap Haiti. In *Proceedings of the 11th International Conference on the Design of Cooperative Systems (COOP)* (pp. 311-326). **(34% acceptance rate).**

Soden, R., Budhathoki, N., Palen, L. (2014). Resilience and Crisis Informatics: Lessons Learned from Open Cities Kathmandu. In *Proceedings of the Conference on Information Systems for Crisis Response and Management (ISCRAM)*. **Best Student Paper Award.**

Peer Reviewed Workshops Organized

Soden, R., Skirpan, M., Fiesler, C., Ashktorab, Z., Baumer, E., Blythe, M., Jones, J. (2019). *CHI4Evil: Creative Speculation On the Negative Impacts of HCI Research*. CHI2019. Glasgow.

Workshop Papers & Non-Archival Conference Presentations

Soden, R. (2019). Modes of Uncertainty. Presented at *The Other Uncertainty: Social, Political, and Cultural Forms of Uncertainty in Weather Contexts* at the 2019 Meeting of the American Meteorological Society. Phoenix, AZ.

Soden, R. (2018). Toward Disasters as Matters of Care. Presented at *CSCW 2018 Workshop on Sociotechnical Systems of Care*. Jersey City, New Jersey.

Soden, R., Lord, A. (2018). Mapping Silences, Reconfiguring Loss: Practices of Damage Assessment & Narratives of Repair in Post-Earthquake Nepal. Presented at *2017 Meeting of the Society for Social Studies of Science (4S)*. Sydney, AU.

Soden, R., Lord, A. (2018). Mapping Silences, Reconfiguring Loss: Practices of Damage Assessment & Narratives of Repair in Post-Earthquake Nepal. Presented at *Natural Hazards Workshop*. Boulder, CO.

Soden, R. (2018). Crisis Informatics in the Anthropocene: Disasters as Matters of Care & Concern. In Companion of the 2018 ACM Conference on Conference on Human Factors in Computing Systems (CHI Doctoral Colloquium). ACM.

Soden, R., Lord, A. (2017). Narrating Disaster, Contesting Reconstruction: Design Notes on Practices of Damage Assessment in the Wake of the 2015 Nepal Earthquake. Presented at *2017 Meeting of the Society for Social Studies of Science (4S)*. Boston, MA.

- Lord, A., **Soden, R.** (2017). Infrastructuring Humanitarian Ignorance in Nepal's Post-Disaster Taskscape. Presented at *2017 Conference on the Changing Political Economy of Risk and Ignorance (CPERI)*. Boston, MA.
- Soden, R.** (2017). Crisis Informatics in the Anthropocene: Disasters as Matters of Care & Concern. *In Companion of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW Doctoral Colloquium)* (pp. 93-96). ACM. Seattle, WA.
- Soden, R.** (2017). Crisis Informatics in the Anthropocene: Disasters as Matters of Care & Concern. *At 2017 Human Computer Interaction Consortium (HCIC)*. Watsonville, CA.
- Soden, R.** (2017). Informating Crisis. *At 2016 Workshop on Crisis Informatics & Human Computer Interaction*. Boulder, Colorado.
- Dennis, E., **Soden, R.** (2016). Towards Cartographic Standards for Web-Based Flood Hazard Maps. Presented at *2016 GIS in the Rockies Conference*. Denver, CO.
- Soden, R.** (2016). Reconfiguring Loss: Memory Practice & Participatory Damage Assessment in Post-Earthquake Nepal. Presented at *2016 Human Computer Interaction Consortium (HCIC)*. Watsonville, CA.
- Soden, R.,** Budhathoki, N. (2016). Alternate Constructions of Damage: Frictional Design and Disaster Impact Assessment in Post-Earthquake Nepal. Presented at *2016 CHI Workshop on HCI Across Borders*. San Jose, CA.
- Soden, R.** (2015). Ecologies of Risk Information: A Comparative Approach. Presented at *2015 CHI Workshop on Ecological Perspectives in HCI: Promise, Problems, and Potential*. Seoul, South Korea.
- Soden, R.** (2015). OpenStreetMap & Disaster Risk Management: Experiences from the Open Cities Project. Presented at *2015 Conference of the Citizen Science Association*. San Jose, CA.
- Soden, R.** (2015). Information Infrastructure & Disaster Risk: A Comparative Approach. Presented at *2015 Information Systems for Crisis Response and Management (ISCRAM) Doctoral Colloquium*. Kristiansand, Norway.
- Soden, R.,** Prager, D. (2005). Broken Promises: Environmental Rights Regimes as Human Rights Guarantees in Latin America and Sub-Saharan Africa. Presented at *2005 International Studies Conference (ISA)*. Honolulu, HI.
- Invited Talks & Guest Lectures**
- Soden, R. (2018). Rethinking Post-Disaster Damage Assessment: Lessons from Critical Data Studies. Presented at *Earth Observatory of Singapore*. National Technical University of Singapore.
- Soden, R. (2018). The Social Life of Disaster Data. Presented at *2018 Understanding Risk Forum*. Mexico City, Mexico.
- Soden, R., Lallemand, D. (2017). Crowdsourcing Damage Assessment to Improve Response and Recovery Following Natural Disasters. Presented at *Stanford HCI Lunch*. Stanford, CA.

- Soden, R. (2016). There's No Such Thing as Raw Crisis Data. At *AAS Workshop on Ethics of Location-Based Data in Crisis Situations*. American Association for the Advancement of Science (AAAS). Washington, D.C.
- Soden, R. (2015). Collective Information Infrastructures During Disaster Response: Findings from the 2015 Nepal Earthquake. Presented at *The Role of Crisis Informatics in Disaster Management: The Case of Nepal Earthquake*. Kathmandu, Nepal.
- Soden, R. (2015). The Polyvocality of Resilience: Discovering a Research Agenda through Interdisciplinary Investigation and Community Engagement. Presented at *Information Systems for Crisis Response and Management (ISCRAM) Plenary*. Kristiansand, Norway.
- Soden, R. (2014). Open Data for Disaster Risk Management. Presented at *2014 Understanding Risk Forum*. London, UK.
- Soden, R. (2014). Crowdsourced Mapping, Community Mapping, & Disaster Resilience. Guest Lecture in Leysia Palen's Course on *Social Computing*. Boulder, CO.
- Soden, R. (2013). Growing the Global OSM Community: Lessons Learned from the Open Cities Project. Presented at *2013 State of the Map Conference*. Birmingham, UK.
- Soden, R. (2011). Crowdsourced Mapping in the 2010 Haiti Earthquake Response. Presented at *2011 Global Platform for Disaster Risk Reduction*. Geneva, CH.

Major Professional Publications

- Soden, R. (2017). *Natural Hazard Data: A Practical Guide*. Asian Development Bank Publications.
- Haklay, M. E., Antoniou, V., Basiouka, S., Soden, R., & Mooney, P. (2014). *Crowdsourced Geographic Information Use in Government*. World Bank Publications.
- Crowley, J., York, D., Soden, R., & Deparday, V. (2014). *Open Data for Resilience Initiative Field Guide*. World Bank Publications.

ACADEMIC SERVICE

Stanford Urban Resilience Initiative Co-Organizer	August 2016- December 2017
Grand Challenges in Crisis Informatics Workshop Organizing Committee	May 2016
CU Boulder Reading Group on Science & Technology Studies Organizer	2015-2016
Panel Organizer on OpenStreetMap as Citizen Science Citizen Science 2015 Conference, San Jose, CA	February 2015
Panel Co-Organizer on Critical Geography and OpenStreetMap 20 th Annual Critical Geography Conference, Boulder CO	February 2014

Reviewer for:

2014-2018

Conference on Human Factors In Computing Systems (CHI)
Conference on Computer Supported Cooperative Work (CSCW)
MIT Press – Science, Technology, & Society List
Conference on Information Systems for Crisis Response and Management (ISCRAM)
Hawaiian International Conference on Systems Sciences (HICSS)
Journal on Science, Technology, and Human Values (STHV)
International Journal of Geo-Information (IJGI)

PROFESSIONAL MEMBERSHIP

Association of Computing Machinery
Society for the Social Studies of Science
Information Systems for Crisis Response and Management
OpenStreetMap Foundation
Humanitarian OpenStreetMap Team (Founding Board Member & Member)

VOLUNTEER EXPERIENCE

Washington DC Community Emergency Response Team (CERT)
Code for Boulder
Boulder County Latino History Project
Open Oakland
Board of Directors, Humanitarian OpenStreetMap Team: 2010-2011
Advisory Board, TechChange: 2011-Present