

Dharma Dailey

Human Centered Design & Engineering
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Education

PhD Student, Human Centered Design & Engineering (HCDE)	2013 – Present
Phd Candidate	September 2016
Advisor Kate Starbird	
University of Washington	
MS Human Centered Design & Engineering	2013
University of Washington	
Capstone: <i>Ambient Analytic Home Air Quality Device</i>	
BS Interdisciplinary Studies (Information Studies, Policy & Writing)	2010
SUNY, Empire State College	

Publications

Peer-Reviewed Conference Papers

Dailey, D. and Starbird, K. 2017. Social Media Seamsters: Stitching Platforms & Audiences into Local Crisis Infrastructure. To be presented at the *ACM 2017 Conference on Computer Supported Cooperative Work (CSCW 2017)*. **Honorable Mention Award.**

Dailey, D., Robinson, J. and Starbird, K. 2016, March. Sharing Food, Gathering Information: The Context and Visibility of Community Information Work in a Crisis Event. In *iConference 2016 Proceedings*.

Fichet, E., Robinson, J., **Dailey, D.** and Starbird K. 2016, May. Eyes on the Ground: Emerging Practices in Periscope Use during Crisis Events. In *13th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2016)*.

Dailey, D. and Starbird, K. 2014. Visible Skepticism: Community Vetting after Hurricane Irene. Short Paper. *2014 Information Systems for Crisis Response and Management Conference (ISCRAM 2014)*, Penn State University.

Peer-Reviewed Articles and Book Chapters

Hill, B. M., **Dailey, D.**, Guy, R. T., Lewis, B., Matsuzaki, M., and Morgan, J. T. Democratizing Data Science: The Community Data Science Workshops and Classes. In *Big Data Factories: Collaboration in Virtual Community Data Collection, Repurposing, Analysis, and Dissemination*. New York, New York: Springer. Forthcoming.

Dailey, D. and Starbird, K. 2016, December. Addressing the Information Needs of Crisis-Affected Communities: The Interplay of Legacy Media and Social Media in a Rural Disaster. In *The Communications Crisis in America, and How to Fix It*. Friedland L. and Lloyd, M. editors. Palgrave MacMillan.

Dailey, D. and Starbird, K. 2014. Journalists as Crowdsourcerers: Responding to Crisis by Reporting with a Crowd. *J of Computer-Supported Cooperative Work, Special Issue: Crisis Informatics and Collaboration*, Dec 2014, 23(4-6), 445-481.

Starbird, K., **Dailey, D.**, Walker, A.H., Leschine, T.M., Pavia, R., and Bostrom, A. 2014. Social Media, Public Participation, and the 2010 BP Deepwater Horizon Oil Spill. *Human and Ecological Risk Assessment: An International Journal*.

Powell, A., Bryne, A. and **Dailey, D.** 2010. The Essential Internet: Digital Exclusion in Low-Income American Communities. *Policy and Internet*. Volume 2, Issue 2, August 2010, 159-190.

Dailey, D. and Powell, A. 2011. Toward a Taxonomy for Public Interest Communications Infrastructure. In *Communications Research in Action: Scholar-Activist Collaborations for a Democratic Public Sphere*. Napoli, P. and Aslama, M. editors. New York: Fordham University Press.

Forlano, L. and **Dailey, D.** 2008. Community Wireless Networks as Situated Advocacy. In *The Situated Advocacy Pamphlet Series*. Khan, O., Scholz, T. and Shepard, M. editors. New York: The Architectural League of New York.

Lightly Reviewed Papers, Posters, and Workshops

Morgan, J., **Dailey, D.**, & Hill, BM. 2017, February. Community Data Science Workshops. For Hacking and Making at Time-Bounded Events: Current Trends and Next Steps in Research and Event Design Workshop. In *Proceedings of the 20th ACM Conference Companion on Computer Supported Cooperative Work & Social Computing*. ACM.

Dailey, D., & Starbird, K. 2016, February. Beyond Official: Government Information Work through Personal Accounts. Poster. In *Proceedings of the 19th ACM Conference Companion on Computer Supported Cooperative Work & Social Computing*. ACM.

Dailey, D., & Starbird, K. 2015, February. It's Raining Dispersants: Collective Sensemaking of Complex Information in Crisis Contexts. Poster presented. In *Proceedings of the 18th ACM Conference Companion on Computer Supported Cooperative Work & Social Computing* ACM 155-158.

Dailey, D. 2015, February. Crowdsourcering: Infrastructuring Crowd Work in Crisis Contexts. For *Information Technology and City Life Workshop*. Workshop Abstract. *18th ACM Conference Companion on Computer Supported Cooperative Work & Social Computing* ACM.

Koerner, K., **Dailey, D.**, Lipp, M., Connor, H. and Sharma, R. 2012. Experience Report: Data visualization for psychotherapy progress tracking. In *Proceedings of the 30th ACM International Conference on Design of Communication (SIGDOC '12)*. ACM 213-218.

Research Reports and Technical Writing

Federal Communications Commission's Communications Security, Reliability and Interoperability Council's (CSRIC V) Working Group 2 Emergency Alerting Platforms. 2016, September. *Social Media & Complementary Alerting Methods – Recommended Strategies & Best Practices Final Report & Recommendations*.

Department of Human Centered Design & Engineering at the University of Washington . 2014, September. Maritime Operational Information Sharing Analysis Prepared for Department of Homeland Security Interagency Operations Center, the National Maritime Intelligence-Integration Office, and the Program Manager for the Information Sharing Environment

Starbird, K. **Dailey, D.** Walker, A.H., Leschine, T.M, Pavia, R., & Bostrom, A. 2014. *Sensemaking through Twitter during the 2010 Gulf Oil Spill*. Coastal Response Research Center (CRRC), University of New Hampshire. Durham, New Hampshire, January 2014.

Dailey, D., Bryne, A., Powell, A., Karaginis, J. and Chung, J. 2010. *Broadband Adoption in Low-Income Communities*. Brooklyn, NY: Social Science Research Council.

Dailey, D. 2009. *Making Broadband and Cellphones Affordable for All: Proposed Reforms to the Lifeline Program of the Universal Service Fund*. The Media Justice Fund of the Funding Exchange.

Dailey D. 2009. *A Field Report: Media Justice Through the Eyes of Local Organizers*. The Media Justice Fund of the Funding Exchange.

Dailey D. 2009. *Criminal Charges: Excessive Prison Phone Rates Take a Toll on Innocent Families*. The Media Justice Fund of the Funding Exchange.

Dailey, D. 2008. *The Tools They Use: Online and Offline Collaboration for Media Activists 2008*. In *Whose Media? Our Media!: Strategic Communications Tools to Reform, Reclaim and Revolutionize the Media*. The Spin Project, San Francisco.

Dailey D. and Tridish, P. 2003. Official Comments to the FCC for Prometheus Radio Project on Media Ownership Studies.

Dailey D. and Siska, T. 1999. FCC's Interference Argument Grounded: Commercial Radio, Not MicroPower, Is More Frequent Hazard for Aviation. Published in *Fairness and Accuracy in Reporting's Extra!* January/February 1999.

Research Experience

Meeting Information Needs after the 2014 Oso Mudslide

2015 - 2017

Kate Starbird, HCDE University of Washington

A mixed methods study that maps the information space that formed around an extended rural crisis. Specifically, we are identifying the expertise, practices, and collaborative actions that fostered and sustained key information resources. I designed the study, wrote the IRB, led 27 in-

depth interviews and additional field research. I've worked 14 students on mixed methods analyses of the design. Lead author on two conference publications.

Detecting Misinformation Flows in Social Media Spaces During Crisis Events 2016

Kate Starbird Emma Spiro, & Robert Mason, University of Washington

I developed a classifier to identify journalism accounts on Twitter. Validated the classifier. Used it to compare misinformation behaviors among journalism accounts and non-journalism accounts. First authored paper in submission. Also, data steward and coordinator for qualitative coding of social media data sets in preparation for machine learning experiments and quantitative analyses.

CoSSAR 2014 - 2017

Through The Center for Collaborative Systems for Security, Safety, and Regional Resilience, I have participated in empirical research on Puget Sound's safety and security professionals information sharing practices as well as training and exercises. Understanding the "as-is" information sharing practices of safety and security professionals is foundational to making improvements to information sharing that support their mission. This grounded understanding is also instrumental to the research I have been conducting to understand how technologies like social media are changing how the public shares, produces, and receives information in times of crisis.

- **Field Research on Information Sharing & Collaboration Cascadia Rising**
Mark Haselkorn, Mark Zachry, & Brian Zito, HCDE University of Washington
Contributed to research design and conducted field observations.
- **Maritime Operations Information Sharing Analysis**
Mark Haselkorn, Mark Zachry, & Keith Butler, HCDE University of Washington
Under Mark Zachry, I led a team of students in conducting a thematic analysis of over 70 interviews with those responsible for maritime security in the Puget Sound. A sponsor-funded project conducted through UW's Center for Collaborative Systems for Security, Safety, and Regional Resilience (CoSSAR). Results were published in a report to the sponsor (Department of Homeland Security).

Social Media in the Aftermath of the Deepwater Horizon Oil Spill 2013 - 2014

Kate Starbird, HCDE, University of Washington

An in-depth mixed methods study characterizing the public conversation that took place on Twitter and related media around the 2010 Deepwater Horizon Oil Spill. Through grounded exploration, we constructed an empirical model of how the public made sense of this complex, knowledge-heavy, ambiguous, and longer-term crisis event. Sponsored by NOAA and the Coastal Response Research Center. I conducted inductive analyses of tweets and related resources and coordinated analyses of other students. Second author on a journal publication.

Addressing Public Information Needs After Hurricane Irene 2012 - 2014

Kate Starbird and Mark Haselkorn, HCDE, University of Washington

Building on community-based participatory research I conducted between 2007 -2011, this primarily ethnographic analysis looked at how information needs were addressed in an area severely impacted by Irene, the Catskills region of upstate New York. I was responsible for research design and data collection. Analysis was conducted under the supervision of Kate Starbird starting in 2013. Lead author on one journal publication and one book chapter.

Evidence-Based Support Systems for Mental Health. 2011 - 2012

Kelly Koerner, Evidence-Based Practice Institute

Conducted two user-centered design studies: 1) As part of a three person team, I conducted user research, designed, prototyped and tested a tablet-based app that supports evidence-based therapeutic interventions for patients at risk of suicide. 2) I led user experience evaluations for the design of an analytics dashboard to track mental health patients' progress. Both studies led to design changes of a National Institute of Mental Health funded system.

Multi-Disciplinary Research Design & Qualitative Evaluation 2010 - 2012

Fast Forward New Mexico

Facilitated a multi-disciplinary research team's project evaluation design for a National Telecommunications and Information Administration Broadband Technology Opportunities Program grant. Also led the qualitative/field component of the evaluation.

User-Research for Federal Communications Policy 2009 - 2010

Dharma Dailey & Amelia Bryne,

Co-PI of the **Broadband Adoption in Low-Income Communities study**, the largest qualitative study to date on why low-income communities lag in U.S. Internet adoption. Sponsored by the Federal Communications Commission to inform the National Broadband Plan for Congress. I co-led a fourteen person research team and coordinated eight partnering groups to reach dozens of community organizations in four states; conducted focus groups and contextual interviews with 170 participants in four regions of the US; handled administration. This research is credited with leading to specific recommendations in the National Broadband Plan. It also informed the design of state interventions directed at low-income populations. The report design was recommended as a model by NTIA staff to other analysts.

The Public Interest Communications Infrastructure Taxonomy Project 2008

Alison Powell, London School of Economics

A grounded study identifying the social impacts that practitioners and academics perceive to be linked to local and regional communications infrastructure projects in the U.S. and Canada with the goal of identifying data sharing opportunities. Helped develop the research protocol, conducted the interviews, contributed to the analysis, and handled the administration. Sponsored by the Social

Science Research Council and the Ford Foundation. Results were shared among participants to facilitate to improve coordinated activities. First author of a book chapter.

Mapping Communications Challenges of Underserved Communities

2008 - 2009

The Funding Exchange

Mapped communication challenges in resource-constrained communities in the US. Conducted research (site visits, contextual interviews, document analysis, participatory workshops) for strategic planning, program evaluation and grantee evaluation relating to communications policy, media accountability, and communications infrastructure grants. I produced research-based reports on communications policy issues; provided technical assistance to grantees and led participatory workshops with nearly 100 community organizers across the US. Impacts included a commitment among a coalition of federal policy advocates to commit to working on the high cost of phone calls to prisoners (which the FCC ruled on in 2013.)

Teaching Experience

Human Centered Design and Engineering

Teaching Assistant

HCDE 210 Explorations in Human Centered Design

Winter 2016 - Spring 2017

I plan and lead weekly two-hour studios for undergraduates (2 sections of 25 students each). I am the curriculum steward leading iterations for Information Visualization, Reflection, and Interaction Design studios. As part of continuous improvements to the course, I help craft grading rubrics, revise assignments and studio content, and grade.

Sketching a Field Guide to Contemporary Crisis Information Work Directed Research Group

Designed and leading 6 students exploring ways to visually communicate crisis information work.

Winter 2017

Teaching Assistant— HCDE 518 User-Centered Design

Fall 2015

Public Information, Social Computing, and Crisis Contexts Directed Research Groups

Designed and led — Social Media Use & the 2014 Oso Mudslide

Fall 2015

Public Information Needs in Crisis Contexts

Spring 2014

Designed and led 16 students to participate in crisis informatics research.

Work Experience

Hands-On, Policy Analysis, and Research Consultant

2005 – 2011

As an independent contractor, I worked at the convergence point between community-based work public and research. This typically involved translating between grassroots initiatives, policy makers and other stakeholders such as funders. Below is some of the contract work that I've done where my role that extends a bit narrowly defined research roles.

Research to Practitioner Translation

The Ethos Group

2006 - 2008

Summarized evidence-based research on the social impact of local networks for a non-academic audience. Available under a creative commons license, materials were used by local broadband experts as educational materials in forums such as the Rural Telecommunications Congress. Supported by the Media and Democracy Fund.

Grassroots Communications Policy Organizing

2006

Media and Democracy Coalition

In coordination with partnering groups across Pennsylvania, I developed and led workshops across the state on pressing national, state, and local telecommunications policy issues.

Spectrum Policy Development, Education, and Build-out

2003 - 2006

Prometheus Radio Project

Researched new technologies and competing spectrum policy regimes to determine what opportunities existed for local communities to use the airwaves beyond what was currently available. Ultimately led to PRP joining the Open Spectrum Coalition; Developed an educational program on spectrum policy and community networks that included hands-on activities and presentations.

Public Workshops & Trainings

Since 2004, I have led dozens of workshops on collaborative issue mapping; communications policy; municipal networks; community media; and participatory media in places as varied as: suburban St. Louis; Washington, DC; rural New Brunswick, Canada; Toronto; New York City; and Northampton, MA. Other locations include: Albuquerque, Boston, San Diego, Illinois (Chicago, Urbana), Minneapolis, New York (Catskill, Buffalo, Cairo, Germantown, Troy, New York City), and Pennsylvania (Erie, Scranton, Pittsburgh, Philadelphia.)

Public Presentations

Connecting America: The Broadband Experience, National Association of Regulatory Utility Commissioners, November, 2012.

Broadband Adoption and the Role of the Public Library (Issues and Solutions), American Library Association Annual Conference. Washington, DC, June, 2010.

Freedom to Speak in the Internet Age: Special Forum on Communications Policy and its Possible Effects on Ethnic Media and Their Communities, CUNY Graduate School of Journalism, June, 2010.

Barriers to Broadband Adoption: FCC-Commissioned Study Briefing March 2, 2010, Capitol Hill. With the American Library Association and the Federal Communications Commission.

Online Participation and Democracy. One Web Day, Washington Square Park, New York, NY. 2008.

Grassroots Wireless and You. National Association of Telecommunications Officers (NATOA), Atlanta, Ga. 2008.

Data Collection for Community Wireless Networks. International Summit for Community Wireless Networks. 2008.

Good Media Needs Good Bones. Feminist Approaches to Media Policy and Infrastructure. Women, Action and Media Conference. (WAM) Cambridge, MA. 2008.

Service

Grand Challenges for HCI Crisis Informatics Workshop, University of Colorado Boulder, co-organizer. 2017

Associate Chair CHI Late Breaking Work 2017

FCC CSRIC V Advisory Committee Working Group on Wireless Emergency Alerts, 2015-2016
Co-led drafting of social media report and recommendations, offered recommendations accepted by the council

Cascadia Rising Catastrophic Earthquake Drill, county evaluator & state observer 2016

Community Data Science Workshop, coordinating team and mentor 2015 -present

DUB Speaker Series, student coordinator team 2014 - 2015

Paper Reviewer 2013-present
New Media & Society; Digital Journalism; Designing Interactive Systems
CHI; ISCRAM (International Conference on Information Systems for Crisis Response and Management) CSCW (Computer Supported Cooperative Work); International Journal of Disaster Risk Reduction; Communication and the Public

Co-founder, HCDE Graduate Student Organization. 2012 - 2013

Co-founder, UX for DUBbies, student- coordinated workshops. 2013 - 2014

Embedded Researcher, WGXC 90.7 FM Hands-On Radio. 2007 - 2011

User representative, At-Large Constituency ICANN 2007 - 2015

Technical Skills

Extensive: Ethnographic and Participatory Research; Facilitation; Project Management; Audio Production.

Competent: Surveys; User Testing (formative and summative); Video Production

Tools: Audacity, Arduino, Audition, CSS, Drupal, DAWs, Final Cut Pro, HTML, Morae, MySQL, Omnigraffle, Tableau, Tobii, WordPress

Course work: User-Centered Design, Usability Testing, Information Visualization, MIS, GIS, Information Design, Physical Computing, Data Science

Certifications

FEMA trainings: IS-00100.b, IS-00200.b , IS-00230.d , IS-00700.a

National Charrette Institute: Charrette Management and Facilitation

Awards and Honors

The Department of Human Centered Design & Engineering Graduate

Award of Excellence for Demonstrating Special Strength in Innovation.

2013