

Melissa Bica

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RESEARCH AREAS

Human-computer interaction (HCI), crisis informatics, computer supported cooperative work (CSCW), social computing, information science, user experience

EDUCATION

- Ph.D., Computer Science, University of Colorado Boulder** expected 2019
Committee: Leysia Palen (advisor, chair), Clayton Lewis, Brian C. Keegan, Kenneth M. Anderson, Julie L. Demuth
NSF Graduate Research Fellow
- M.S., Computer Science, University of Colorado Boulder** 2017
- B.S., Computer Science and Engineering, Santa Clara University** 2014
Graduated *cum laude*
- Study abroad, School of Informatics, University of Edinburgh, Scotland Fall 2012

PUBLICATIONS

Archival, Peer-Reviewed Conference Papers

- Frank Bentley, Max Silverman, and **Melissa Bica**. (2019). **Exploring Online Video Watching Behaviors**. To appear in *Proceedings of the ACM International Conference on Interactive Experiences for Television and Online Video (TVX 2019)*.
- Melissa Bica**, Julie L. Demuth, James E. Dykes, and Leysia Palen. (2019). **Communicating Hurricane Risks: Multi-Method Examination of Risk Imagery Diffusion**. To appear in *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI 2019)*.
- Frank Bentley, Katie Quehl, Jordan Wirfs-Brock, and **Melissa Bica**. (2019). **Understanding Online News Behaviors**. To appear in *Proceedings of the CHI Conference on Human Factors in Computing Systems Proceedings (CHI 2019)*.
- Melissa Bica**, Leysia Palen, and Chris Bopp. (2017). **Visual Representations of Disaster**. *Proceedings of the 20th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW '17)*.
- Jennings Anderson, Marina Kogan, **Melissa Bica**, Leysia Palen, Kenneth M. Anderson, Kevin Stowe, Rebecca Morss, Julie Demuth, Heather Lazrus, Olga Wilhelmi, and Jen Henderson. (2016). **Far Far Away in Far Rockaway: Responses to Risks and Impacts during Hurricane Sandy through First-Person Social Media Narratives**. *Proceedings of the 13th International Conference on Information Systems for Crisis Response and Management (ISCRAM '16)*.
- Kyoung-Sook Kim, **Melissa Bica**, Isao Kojima, and Hirotaka Ogawa. (2015). **RendezView: Look at Meanings of an Encounter Region over Local Social Flocks**. *Proceedings of the 6th ACM SIGSPATIAL International Workshop on GeoStreaming*.

Journal Articles

- Julie L. Demuth, Rebecca E. Morss, Leysia Palen, Kenneth M. Anderson, Jennings Anderson, Marina Kogan, Kevin Stowe, **Melissa Bica**, Heather Lazrus, Olga Wilhelmi, and Jen Henderson. (2018). **"Sometimes da #beachlife ain't always da wave": Understanding People's Evolving Hurricane Risk Communication, Risk Assessments, and Responses Using Twitter Narratives.** *Weather, Climate, and Society* 10, 3: 537 – 560.
- Rebecca E. Morss, Julie L. Demuth, Heather Lazrus, Leysia Palen, C. Michael Barton, Christopher A. Davis, Chris Snyder, Olga V. Wilhelmi, Kenneth M. Anderson, David A. Ahijevych, Jennings Anderson, **Melissa Bica**, Kathryn R. Fossell, Jennifer Henderson, Marina Kogan, Kevin Stowe, and Joshua Watts. (2017). **Hazardous weather prediction and communication in the modern information environment.** *Bulletin of the American Meteorological Society* 98, 12: 2653–2674.

Non-Archival Workshop Papers & Posters

- Melissa Bica.** (2018). **Sensemaking Around Visual Hurricane Risk Messaging.** Presented at "Sensemaking in a Senseless World" Workshop at the ACM Conference on Human Factors in Computing Systems (CHI '18). [Workshop Paper]
- Melissa Bica.** (2017). **Visual Representations of Disaster: Analysis of Disaster-Related Online Imagery.** Presented at CRA-W Grad Cohort Workshop. [Poster]
- Melissa Bica** and Jennings Anderson. (2016). **"You Are What You Tweet!" The Ethics of (Re) Publishing Public Data as Crafted Narratives.** Presented at "Ethical Encounters in HCI Research" Workshop at the ACM Conference on Human Factors in Computing Systems (CHI '16). [Workshop Paper]
- Melissa Bica** and Kyoung-Sook Kim. (2015). **RendezView: An Interactive Visual Mining Tool for Discerning Flock Relationships in Social Media Data.** Presented at International Conference for High Performance Computing, Networking, Storage and Analysis (SC '15). [Poster]

CONFERENCE PRESENTATIONS

Presenter and panelist, "The Other Uncertainty: Social, Political, and Cultural Forms of Uncertainty in Weather Contexts." American Meteorological Society 99th Annual Meeting. Phoenix, AZ. January 7, 2019.

PRESS COVERAGE

- "Twitter could be confusing people who need crucial hurricane information." Ashley Michels. KDVR FOX31 Denver. September 11, 2018. <https://kdvr.com/2018/09/11/twitter-could-be-confusing-people-who-need-crucial-hurricane-information/>
- "Graduate Makes Waves in Data Mining." Jenni Sigl. The Santa Clara. January 7, 2016. <http://thesantaclara.org/graduate-makes-waves-in-data-mining/>
- "Mining social media to manage crises." Sam Stalion. Science Node. December 2, 2015. <https://sciencenode.org/feature/mining-social-media-to-manage-crises.php>

PROFESSIONAL & RESEARCH EXPERIENCE

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| Oath Inc. , Sunnyvale, CA
User Experience Research Intern, Yahoo! Mail | Summer 2018 |
| Microsoft Research , Redmond, WA
Research Intern, Business AI Design & Ethics group | Summer 2017 |

National Institute of Advanced Industrial Science and Technology , Tsukuba, Japan OSDC Partnership for International Research and Education Fellow	Summer 2015
Santa Clara University Center for Science, Technology, & Society and Anudip Foundation , Kolkata, India and Santa Clara, CA Global Social Benefit Fellow	Feb.–Dec. 2013
Qualcomm Incorporated , San Diego, CA Interim Engineering Intern	Summer 2012

TEACHING EXPERIENCE

University of Colorado Boulder Guest Lecturer for CSCI 4830: HCC Big Data Computing Teaching Assistant for CSCI 1300: Introduction to Programming	Oct. 2015 Aug. 2014–May 2015
Santa Clara University Guest Lecturer for COEN 100: Undergraduate Research Seminar	May 23, 2018

SKILLS

Programming Languages & Tools: Python, MongoDB, Jupyter Notebook, HTML/CSS/JS, R, MATLAB, Tableau, QGIS

Methods: quantitative/qualitative data analysis, visual content analysis, surveys, interviews, ethnographic observation, think-alouds, cognitive walkthroughs, personas/user stories, in-lab studies

AWARDS

National Science Foundation Graduate Research Fellowship	June 2016
Open Science Data Cloud Partnerships for International Research and Education (PIRE) Fellowship	Apr. 2015
Graduate Student Research Community Development Award	Oct. 2014
Dean’s Fellowship (CU Boulder)	AY 2014–2015
Dean’s List (Santa Clara University)	AY 2013–2014
Senior Design Presentation Session Award (Santa Clara University)	May 2014
IEEE Women in Engineering International Leadership Conference Scholarship	Apr. 2014
Upsilon Pi Epsilon Computing and Information Honor Society	Apr. 2014
Willem P. Roelandts and Maria Constantino-Roelandts Grant	Nov. 2013
Tau Beta Pi Engineering Honor Society	Oct. 2013
Grace Hopper Celebration of Women in Computing Scholarship	July 2013
Global Social Benefit Fellowship	Feb. 2013
Cisco-SCU Engineering Fellowship	May 2012
Richard Tapia Celebration of Diversity in Computing Scholarship	Apr. 2011

ACADEMIC SERVICE

Reviewing

- ACM Conference on Human Factors in Computing Systems (CHI)
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
- International Journal of Disaster Risk Reduction
- ACM Transactions on Information Systems
- International Conference on Information Systems for Crisis Response and Management (ISCRAM)
- Weather, Climate and Society

Student Volunteering

- CHI 2016–2018
- International Conference for High Performance Computing, Networking, Storage, and Analysis (SC15)

Mentoring

- Mentored 8 undergraduate researchers for the Discovery Learning Apprenticeship (Spring 2016)

PROFESSIONAL MEMBERSHIP

- ACM, ACM-W, ACM Special Interest Group Computer-Human Interaction (SIGCHI), Colorado Virtual Operations Support Team (COVOST)