

Johanna (Hannah) Cohoon

Postdoctoral Researcher

School of Computing
University of Utah

hannah.cohoon@utah.edu
hannahcohoon.com

Mixed methods researcher with expertise in studying software development teams and knowledge workers' use of technology. I am curious about sociotechnical and human factors that influence users', non-users', and software developers' interaction with infrastructure, especially within a scientific context. My research explores how knowledge infrastructures are changed over time and the ways they influence scientific practice. Experienced in experimental and qualitative study design and reporting outcomes to a variety of stakeholders.

Education

Ph.D. in Information Science
University of Texas at Austin
2022

Committee: James Howison (chair), Amelia Acker,
Andrew Dillon, Brian Nosek

B.A. in Cognitive Science
University of Virginia
2013

Primary Research Projects

Cloudlab User Experience

University of Utah
2022-present
Postdoctoral Researcher

Goals: Gather and analyze interview and contextual inquiry data to identify improvements to the user experience on a cloud computing testbed. Collaborate with developers to evaluate interventions. Design and execute follow up studies to initial research.

Results: Found opportunities to reduce rework as well as facilitate reproducibility and access to cloud resources. Node allocation processes can better align with users' publication cycle, making the testbed more fit for purpose.

Outcomes: Interface changes introduced to reduce user effort. Additional research related to users' publication cycle. Publications accepted at PASC23 and CSCW23. Presented findings to development team for group discussion/action.

Negotiating Open Science

University of Texas at Austin
2021-2022
Doctoral Fellow

Goals: Design and execute a study to inform scientific infrastructure design and policy related to open science. Use interviews, observation, trace data and document analysis to study the development, use, and non-use of a platform for open science [i.e. public sharing of research].

Results: Increased funding and career advancement opportunities for software maintenance are necessary to sustain open science infrastructure [OSI]. OSI is vulnerable to

*Negotiating Open Science
(continued)*

spam and misinformation; design and policy interventions are needed to ensure trustworthiness. Value conflicts indicate OSI must support private use with the option to transition to open.

Outcomes: Publication accepted at CHI23 and in progress for *Science, Technology, and Human Values*. Results reported in person to funders and stakeholders in May 2023 at the Center for Open Science's 10 year anniversary summit. Results accepted for presentation at 4S 2023.

Transitions for Sustainability

University of Texas at Austin
2016-2022
Graduate Research Assistant

Goals: Conduct a study of scientific software development to identify best practices for sustainability. Use content analysis, qualitative comparative analysis, and remote interviews. Store data in a structured format for querying with SPARQL. Train ~30 research assistants to collect data.

Results: Organizational types interact with strategies for sustainability: Open source development may provide sustainability but that model conflicts with academic rewards. In contrast, a hierarchical lab model can ensure sustained software development.

Outcomes: Results reported in multiple workshops for scientific software developers. Publication under revision following revise and resubmit request from CSCW.

Softcite

University of Texas at Austin
2019-2022
Graduate Research Assistant

Goals: Collaborate to develop a gold-standard dataset for machine learning to recognize software entities in research articles.

Results: Dataset created and disseminated.

Outcomes: Multiple publications accepted; dataset used by others to create tools for identifying and citing scientific software in publications.

Scientific Production

Lab for Innovation Science at Harvard
2018-2019
Fellow

Goals: Study micro-level processes of scientific lab management to understand the relationship between environmental factors (e.g. competition, funding availability, transparency norms) and research productivity to identify next steps for research. Co-develop interview protocol. Conduct semi-structured, on-site interviews with geoscientists.

Results: Recognized the structure and composition of a research group as an area for future research.

Outcomes: Established a continued professional relationship with other fellows. Working paper available online.

*Reproducibility Project:
Psychology*

Center for Open Science

Goals: Co-manage >150 international collaboration members to study scientific reproducibility via experimental replication. Document research process transparently through research reports. Collect survey data.

Center for Open Science
(continued)
2013-2015
Project Coordinator

Results: Reproducibility rates in psychology are low—about 1/3 of studies replicated.

Outcomes: Results published in *Science*. Responded to multiple media inquiries (e.g. New York Times, FiveThirtyEight, Inside Higher Ed. Findings were a major catalyst for the ongoing push for better reproducibility in science prompting additional similar studies.

Publications and Artifacts

Peer Reviewed Extended Abstract	Cohoon, J., & Howison, J. [2023]. Adapting to Challenges in Qualitative Fieldwork through Theoretical Sampling. <i>CHI Conference on Human Factors in Computing Systems Extended Abstracts</i> . https://doi.org/10.1145/3544549.3573873
Peer Reviewed Conference Proceeding	Cohoon, J., Kabir, K.S., Motahar, T., & Wiese, J. [2023]. Cultivating Altruism Around Computing Resources: Anticipation Work in a Scholarly Community. <i>CSCW'23</i> . https://doi.org/10.1145/3610185
Peer Reviewed Poster	Motahar, T., Cohoon, J., Kabir, K.S., & Wiese, J. [2023]. <i>Closing the Gap: Aligning Developers' Expectations and Users' Practices in Cloud Computing Infrastructure</i> [Poster presentation]. <i>PASC23</i> .
Dataset	Cohoon, J. [2023, January 9]. Interview Transcripts (Negotiating Open Science). Retrieved from osf.io/qgtbr
Peer Reviewed Journal Article	Du C, Cohoon J, Lopez P, & Howison J. [2022]. Understanding progress in software citation: a study of software citation in the <i>CORD-19 corpus</i> . <i>PeerJ Computer Science</i> 8:e1022 https://doi.org/10.7717/peerj-cs.1022
Peer Reviewed Extended Abstract	Cohoon, J. [2021]. Negotiating Open Science: The Open Science Framework as a Technology-in-Practice. <i>CSCW '21 Companion</i> , October 23–27, 2021, Virtual Event.
Peer Reviewed Journal Article	Cohoon, J & Howison, J. [2021] Norms and Open Systems in Open Science. <i>Information and Culture</i> . 56 [2], 115-137. https://doi.org/10.7560/IC56201
Peer Reviewed Journal Article	Du, C., Cohoon, J., Lopez, P., & Howison, J. [2021]. Softcite dataset: A dataset of software mentions in biomedical and economic research publications. <i>Journal of the Association for Information Science and Technology</i> . 72 [7], 870-884. https://doi.org/10.1002/asi.24454
Workshop Paper	Cohoon, J., Du, C., & Howison, J. [2021] <i>The Challenges to Sustainable Software Software Development in Science</i> . Collegeville Workshop on Sustainable Scientific Software, July 2021, Virtual/Collegeville, MN.
Peer Reviewed Conference Proceeding	Du, Caifan, Cohoon, J., Priem, J., Piwowar, H. A., Meyer, C., & Howison, James. [2021]. CiteAs: Better Software through Sociotechnical Change for Better Software Citation. <i>CSCW '21 Companion (Demo Paper)</i> . https://doi.org/10.1145/3462204.3482889
Peer Reviewed Conference Proceeding; <u>Best applied paper runner-up</u>	Lopez, P., Du, Caifan, Cohoon, J., & Howison, James. [2021]. Mining Software Entities in Scientific Literature: Document-level NER for an Extremely Imbalanced and Large-scale Task. <i>CIKM 2021</i> , Gold Coast, Queensland, Australia. November 2021. https://doi.org/10.1145/3459637.3481936
Working Group Recommendations	Puebla, I., Lowenberg, D., & Working Group for Research Data Publishing Ethics [2021]. Joint FORCE11 & COPE Research Data Publishing Ethics

Working Group Recommendations. Zenodo.
<https://doi.org/10.5281/zenodo.5391293>

Peer Reviewed Poster Howison, J., Lopez, P., Du, C., Gilmore, N., Cohoon J., Adams, N., & Ram, K. [2021]. *Softcite: Data- driven Software Visibility for Science* [Poster presentation]. Open Data Science Conference [ODSC] 2021.

Dataset Lopez, P., Du, C., Cohoon, H., & Howison, J. [2021]. Softcite software mention extraction from the COVID-19 publications [Data set]. Zenodo.
<https://doi.org/10.5281/zenodo.4445202>

Poster Cohoon, J., Howison, J. [2019]. *Routes to Sustainable Software: Transitioning to Peer Production* [Poster presentation]. 2019 Collegeville Workshop on Sustainable Scientific Software, Collegeville, MN.

Peer Reviewed Journal Article Link, Lombard, Damen, Rosser, Germonprez, Goggins... Cohoon...Schechter. [2019]. Open Community Health: A Workshop Report. *Journal of Peer Production*, 12(1).

Workshop Paper Cohoon, J., Howison, J., Du, F. [2019]. *Studying the Process of Transition to Peer Production*. CSCW 2019 Workshop - Mapping the How, November 2019, Austin TX, USA.

Workshop Paper Du, F., Cohoon, J., Howison, J., Priem, J., Piwowar, H. [2019]. *Studying Processes in Software Citation Towards Improved Collaboration Among Scientists*. CSCW 2019 Workshop - Mapping the How, November 2019, Austin, TX.

Peer Reviewed Conference Proceeding Cohoon, J., & Howison, J. [2018]. Routes to Sustainable Software: Transitioning to Peer Production. *Academy of Management Proceedings*, 2018(1), 12182. <https://doi.org/10.5465/AMBPP.2018.12182abstract>

Conference Abstract Karadkar, U., Cohoon, J. [2018]. Developing Practice-informed, Minimal Overhead Workflows for Large-scale Geoscience Data Management. American Geophysical Union 2018. Washington, D.C., December 2018.

Peer Reviewed Journal Article Open Science Collaboration*. [2015]. Estimating the reproducibility of psychological science. *Science*, 349(6251).

*Over 250 co-authors published under the moniker Open Science Collaboration. As project coordinator, my role was substantial.

Presentations and Invited Talks

Conference presentation Cohoon, J [2023]. Managing communalism: How stakeholders in open science infrastructure enact scholarly values. 4S 2023. November 8-11, 2023. Honolulu, HI, USA.

Conference presentation Cohoon, J., Kabir, K.S., Motahar, T., & Wiese, J. [2023]. Cultivating Altruism Around Computing Resources: Anticipation Work in a Scholarly Community. CSCW'23. October 14-18, 2023. Minneapolis, MN, USA.

Plenary panel Chatzi, E., Heroux, M., Cohoon, J., Huebl, A., Imam, N., & Pezzuto, S. [2023]. Better Together: How Can We Enhance Inter-Community Collaboration? PASC23. June 26-28, 2023. Virtual/Basel, Switzerland.

Conference presentation Cohoon, J [2023]. Finding time through user research. PASC23. June 26-28, 2023. Virtual/Basel, Switzerland.

Invited talk Cohoon, J [2023]. OSF as a Persuasive Technology. Center for Open Science 10 Year Anniversary. May 7, 2023. Washington, DC, USA.

Conference presentation Cohoon, J [2022]. Understanding the Economy of Open-source Software Development Communities. PASC22. June 27-29, 2022. Virtual/Basel, Switzerland.

<i>Conference presentation</i>	Cohoon, J. [2021]. Living and Breathing Zendesk Tickets: Spam on Open Science Platforms. FORCE2021. December 7-9, 2021. Virtual Event. https://doi.org/10.5281/zenodo.5765303
<i>Workshop keynote</i>	Cohoon, J. [2021]. Do science, for software's sake!. Workshop on the Science of Scientific-Software Development and Use, December 15, 2021, Virtual. Zenodo. https://doi.org/10.5281/zenodo.5784593
<i>Invited talk</i>	Cohoon, J. [2021]. Transitioning to Peer Production. Presented at a Productivity and Sustainability Improvement Planning (PSIP) project team meeting, August 10, 2021, Virtual.
<i>Conference keynote</i>	Cohoon, J. [2019] Open Science: refining and Revealing Scientific Practice. Presented at STEM Librarians South Conference, July 19, 2019, Austin, TX.
<i>Conference presentation</i>	Cohoon, J., Howison, J. [2019]. Open Science as a Value-Driven, Cyberinfrastructure-Supported Ethos. Presented at 4S, September 4, 2019, New Orleans, USA.

Workshop and Short Course Participation

3SP Workshop, Seattle, 2022
 CSCW Doctoral Colloquium, Virtual, 2021
 ASIST Doctoral Colloquium, Salt Lake City, 2021
 Science of Science Summer School, Virtual, 2021
 Collegeville Workshop on Scientific Software, Virtual, 2021
 6S: STS Infrastructures, 4S 2020, Virtual/Prague, Czech Republic, 2020
 Mapping the “How” of Collaborative Action, CSCW 2019, Austin, TX, 2019
 Collegeville Workshop on Sustainable Scientific Software, Collegeville, MN, 2019
 Force11 Scholarly Communications Institute, San Diego, CA, 2018
 Science Gateways Community Institute Bootcamp, Austin, TX, 2018
 Workshop on Open Community Health and Sustainability, Omaha, NE, 2018
 NSF RCN Workshop on the Cyberinfrastructure Workforce, Alexandria, VA, 2017

Teaching Experience

AI, Spring 2021, UT Austin, “Academic Success in the Digital University”
 Served as Instructor of Record
 TA, Spring 2020, UT Austin, “Human-Computer Interaction”
 Instructor of Record: Jacek Gwizdka
 TA, Fall 2019, UT Austin, “Theories and Applications of Metadata”
 Instructor of Record: Amelia Acker
 TA, Fall 2019, UT Austin, “Critical Data Studies”
 Instructor of Record: Amelia Acker

Professional Service

National Science Foundation, ad hoc reviewer, 2023
PeerJ, Reviewer, 2023
PASC23, Reviewer, 2023
Computing in Science and Engineering (CiSE), Reviewer, 2021
Force11 Data Ethics Working Group, Member, 2021
Collegety Workshop on Scientific Software, Organizing Committee Member, Virtual, 2021
PLoS Computational Biology, Reviewer, 2021
Colloquium Committee, Student representative, Austin, TX, 2020-2021
iConference, Reviewer, 2018-2020
Open Rank Search Committee, Student representative, Austin, TX, 2019-2020
Information School Doctoral Student Association (iDSA), President, Austin, TX, 2018-2019
Doctoral Studies Committee, Student representative, Austin, TX, 2016-2019
Diversity and Inclusion Committee, Student representative, Austin, TX, 2017-2018
CSCW Conference, Student volunteer, Portland, OR, 2017
GROUP Conference, Student volunteer, Sanibel Island, FL, 2017

Awards

Early Career Travel Award, SIGHPC, 2023
Graduate Student Professional Development Award, UT Austin, 2021
University Graduate Continuing Fellowship, UT Austin, 2021
Graduate School Summer Fellowship, UT Austin, 2020
Bowden Conference Travel Scholarship, UT Austin, 2018
Diversity Scholarship, SciPy Conference, 2017
Benonine Muse Scholarship, UT Austin, 2017 & 2016

Select Media Recognition

New York Times, 2015, "Many Psychology Findings Not as Strong as Claimed, Study Says"
FiveThirtyEight, 2015, "Psychology Is Starting To Deal With Its Replication Problem"
Inside Higher Ed, 2015, "Why Replication Matters"