

BRIAN ROBERT CALLAHAN

Curriculum vitae

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EDUCATION

- Ph.D.** Science & Technology Studies, Rensselaer Polytechnic Institute, Troy, NY
August 2018
Dissertation: *Complexities of Collaboration: An Open Source Story*
Dissertation Advisor: Mike Fortun
- MS** Science & Technology Studies, Rensselaer Polytechnic Institute, Troy, NY
December 2015
- MA** Anthropology, Monmouth University, West Long Branch, NJ
August 2014
Thesis: *From Basson to Fagott: Evolution vs. Revolution*
Thesis Advisor: William P. Mitchell
- BHA** Music Performance & Anthropology, Carnegie Mellon University, Pittsburgh, PA
May 2009
College Honors
University Honors

REFEREED PUBLICATIONS

Journal Articles

- Callahan, Brian Robert.** Forthcoming. "A protocol for the formatting and transmission of binary data over CW." QEX.
- Fortun, Kim, **Brian Callahan**, Brandon Costelloe-Kuehn, Brad Fidler, Alison Kenner, Aalok Khandekar, Alli Morgan, Lindsay Poirier, and Mike Fortun. Forthcoming. "Hosting the Platform for Experimental, Collaborative Ethnography."
- Callahan, Brian Robert**, Charles Hathaway, and Mukkai Krishnamoorthy. 2016. "Quantitative Metrics for Generative Justice: Graphing the Value of Diversity." *Teknokultura* 13(2): 567-586.

Book Chapters

- Fortun, Mike, Lindsay Poirier, Alli Morgan, **Brian Callahan**, and Kim Fortun. 2021. "What's so funny 'bout PECE, TAF, and Data Sharing?" In *Collaborative Anthropology Today: A Collection of Exceptions*, edited by Dominic Boyer and George E. Marcus. Cornell University Press.
- Eglash, Ron, William Babbitt, Audrey Bennett, Kathryn Bennett, **Brian Callahan**, James Davis, John Drazen, et al. 2016. "Culturally Situated Design Tools: Generative Justice as a Foundation for STEM Diversity." In *Moving Students of Color from Consumers to Producers of Technology*, edited by Yolanda Rankin and Jakita

Thomas, 132-151. Hershey, PA: IGI Global.

Conference Proceedings

Callahan, Brian Robert. 2016. "SocialBSD: A Review of Diversity and Inclusivity Initiatives in the *BSD Community and Imagining Future Pathways." Proceedings of AsiaBSDCon 2016: 167-176.

GRANTS WON

2020 Teaching and Learning Collaboratory Seed Grant: *The Rensselaer Cybersecurity Collaboratory*
Rensselaer Polytechnic Institute, Brian Callahan, PI

SCHOLARLY OUTPUTS

2015-present PECE, the Platform for Experimental Collaborative Ethnography
PECE has a global network of over 500 users working on a wide variety of projects from Asthma and pollution research, to Disaster Studies, to Cybersecurity, Japanese oral history, and more. Also used to support numerous graduate and undergraduate courses at UCI, RPI, and beyond.
Contributions: Lead Open Knowledge Developer
Technical knowledge: code (HTML/CSS/JS/PHP), systems administration lead for the entire global network of servers, cybersecurity/information security, documentation, best practices

FELLOWSHIPS AWARDED

2014-2016 GK-12/3Helix Fellowship, NSF
Rensselaer Polytechnic Institute, Ron Eglash, PI

CONFERENCE PARTICIPATION

Papers presented

- 2021** "The education of hacking: A year of teaching all the things," BSidesROC 2021, Rochester, NY. Mar. 20, 2021.
- 2020** "Middleware, Light Structure, Experimental Systems: Designing the Platform for Experimental Collaborative Ethnography (PECE)," 4S/EASTS Conference. August 2020. (Mike Fortun, Kim Fortun, Tim Schutz, Angela Okune, James Adams, Prerna Srigrayan, Lindsay Poirier, **Brian Callahan**, Brandon Costelloe-Kuehn, Ali Kenner, Aalok Khandekar, Renato Vasconcellos Gomes)
- 2020** "The education of hacking: A year of teaching all the things," BSidesROC 2020, Rochester, NY. Mar. 21, 2020. (Cancelled/COVID-19)
- 2019** "Learning to (Open)BSD through its porting system," vBSDCon 2019, Reston, VA, Sep. 5-7, 2019.
- 2018** "Hosting the Platform for Experimental Collaborative Ethnography," Displacements: the Biennial Meeting of the Society for Cultural Anthropology, Apr. 19, 2018. (Kim

Fortun, Mike Fortun, Lindsay Poirier, Alli Morgan, **Brian Callahan**, Brandon Costelloe-Kuehn, Alison Kennner, Brad Fidler, Aalok Khandekar)

- 2018 "Making it all work: The Infrastructures and Limits of (Digital) Collaboration," Institutions and Societies 2018, SUNY Albany, Albany, NY, Feb 23, 2018.
- 2017 "Coding Collaboration: Exploring a Definition Through a Transgender Hacker Collective," American Anthropological Association Annual Meeting 2017, Washington, D.C., Nov. 29-Dec. 3, 2017.
- 2017 "Leveraging Collaborative Mentorship to Strengthen Your Free Software Community" (with Lisa Marie Maginnis), Seattle GNU/Linux Conference, Seattle Central University, Seattle, WA, Oct. 6-7, 2017.
- 2017 "Rethinking Citizen Science by Doing Citizen Science" (with J. Dylan Rees), Society for the Social Studies of Science Conference 2017, Boston, MA, Aug. 30-Sep. 2, 2017.
- 2017 "Collaboration as a multi-scalar phenomenon," Northeast Science and Technology Studies Conference 2017, York University, Toronto, Ontario, Canada, Apr. 22-23, 2017.
- 2016 "Trans Tech: Ethnography of a Hacker Collective," American Anthropological Association Annual Meeting 2016, Minneapolis, MN, Nov. 16-20, 2016.
- 2016 "Towards a Transgender Technoscience," Trans*Studies Conference 2016, University of Arizona, Tucson, AZ, Sep. 7-10, 2016.
- 2016 "Diverse Be-longings: Trans Hacker Collectives as New Sites of Tech Diversity Understandings," Theorizing the Web 2016, New York, NY, Apr. 15-16, 2016.
- 2016 "Trans Code: Free Software as Model & Critique of Diversity by Transgender Hackers" (with Lillian Lemmer), LibrePlanet 2016, MIT, Cambridge, MA, Mar. 19-20, 2016.
- 2016 "SocialBSD: A Review of Diversity and Inclusivity Initiatives in the *BSD Community and Imagining Future Pathways," AsiaBSDCon 2016, Tokyo University of Science, Tokyo, Japan, Mar. 10-13, 2016.
- 2016 "The Trans Tech Network: Using Culture to Challenge Structure and Diversity," Institutions and Societies 2016, SUNY Albany, Albany, NY, Feb. 26, 2016.
- 2015 "Pathways to Social Justice in Social Science-Computer Science Collaboration," American Anthropological Association Annual Meeting 2015, Denver, CO, Nov. 18-22, 2015.
- 2015 "Devio.us, the Free OpenBSD Shell Provider and Online *BSD User Group: Technical and Social Lessons Learned from Half a Decade of Service" (with Bryce Chidester), vBSDcon 2015, Reston, VA, Sep. 11-13, 2015.

2015 “Building BUGs: A Broad View of the New York City *BSD User Group” (with George Rosamond), BSDCan 2015, University of Ottawa, Ottawa, Canada, Jun. 10-13, 2015.

Conferences organized

2014 New York City *BSD Conference 2014, New York, New York, Feb. 8, 2014.

INVITED TALKS

2021 “How to send computer code using Morse Code,” Long Island CW Club, 2021.

2020 “Introducing the CW Record Protocol,” Troy Amateur Radio Association, Nov. 17, 2020.

2019 “Hypatia Software Organization: A who, what, why, and how of advancing diversity in Technology,” Defcon 201, Sep. 20, 2019.

2018 “OpenBSD and You,” Defcon 201, Dec. 21, 2018.

CAMPUS/DEPARTMENTAL TALKS

Rensselaer Polytechnic Institute, Troy, NY

Department of Computer Science

Introduction to Open Source: Lab, Open Source Documentation and Community Interaction (Spring 2017, Fall 2016, Spring 2016, Fall 2015)

Spring 2015 Rensselaer Center for Open Source: Lecture, Welcome to OpenBSD!

Department of Interdisciplinary Humanities and Social Sciences

Fall 2016 Open Source Art, Music, and Culture: Lecture, Transgender Communities in Open Source

TEACHING EXPERIENCE

Courses Taught

Rensselaer Polytechnic Institute, Troy, NY

IT & Web Science Program

Spring 2021 Information Systems Security
Web Systems Science Development

Fall 2020 Modern Binary Exploitation
Web Systems Development

Spring 2020 Information Systems Security
Web Systems Science Development

Fall 2019 Modern Binary Exploitation (Instructor of Record; co-taught with Dr. Ana Milanova)
Web Systems Development
Web Systems Science Development (as large-group independent study)

Spring 2019 Information Systems Security
Web Systems Science Development
Modern Binary Exploitation (as large-group independent study)
Penetration Testing (independent study)

Spring 2017 IT & Society

Department of Science & Technology Studies

Spring 2018 Introduction to STS
Sustainability by Design
Sustainability Careers

Fall 2017 Gender in Culture
Gender in History
Introduction to STS

Spring 2017 Design in Culture
Race as a Global Challenge
Race in Culture
Sustainability by Design

Fall 2016 Gender in Culture
Introduction to STS

Russell Sage College, Troy, NY

Department of Arts & Letters

Fall 2018 Public Speaking & Presentations

RESEARCH EXPERIENCE

2020-present Cybersystems Security Research Group
Rensselaer Polytechnic Institute, Brian Callahan, PI

2015-present Lead Open Knowledge Developer, Platform for Experimental and
Collaborative Ethnography (PECE)
University of California, Irvine, Kim Fortun, PI

2015-present Lead Systems Administrator, Platform for Experimental and Collaborative
Ethnography (PECE)
University of California, Irvine, Kim Fortun, PI

2014-2016 Fellow, GK-12/3Helix
Rensselaer Polytechnic Institute, Ron Eglash, PI

DEPARTMENTAL/UNIVERSITY SERVICE

2020-present Graduate Admissions Committee, Information Technology & Web Science

2019-present	Curriculum Committee, Information Technology & Web Science Graduate
2019-present	Curriculum Committee, Information Technology & Web Science Undergraduate
2019-present	Concentration advisor, Information Dominance, Graduate, ITWS
2019-present	Concentration advisor, Information Security, Graduate, ITWS
2019-present	Concentration advisor, STS, Undergraduate, ITWS
2019-present	Concentration advisor, Information Security, Undergraduate, ITWS
2019-present	Faculty advisor, RPI-Sage chapter of Hillel International: The Foundation for Jewish Life at Colleges and Universities
2019-present	Faculty advisor, RPISEC, the Information Security Club and CTF Team Rensselaer Polytechnic Institute
2019-2020	Cybersecurity Analysis Team, Member Rensselaer Polytechnic Institute
2016-2019	Principal Bassoonist, University Orchestra Rensselaer Polytechnic Institute
2016-2017	Department of Science & Technology Studies Colloquium Committee Rensselaer Polytechnic Institute
2016-2017	Department of Science & Technology Studies Graduate Representative Rensselaer Polytechnic Institute
2012-2014	Information Technology University Steering Council Monmouth University
2012-2014	Principal Bassoonist, University Orchestra Monmouth University

GRADUATE THESES ADVISED

2021 A security policy combating counterfeiting for the average small business
Advisee: Isaac Llewellyn, Information Technology & Web Science

UNDERGRADUATE THESES ADVISED

2016-2017 Pedestrian Dis/Order: Reimagining Our Urban Streets
Advisee: Morgan Johnson, Science & Technology Studies

PROFESSIONAL AFFILIATIONS

American Anthropological Association
American Association for the Advancement of Science
Society for the History of Technology
Society for the Social Studies of Science

NON-PROFIT/PROFESSIONAL EXPERIENCE

2016-present Clerk, Hypatia Software Organization, Inc.
Boston, MA

2016-present Director, Hypatia Software Organization, Inc.
Boston, MA

2013-present Developer, The OpenBSD Project
Calgary, Alberta, Canada