



Jack Bandy

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Education

Northwestern University (Ph.D. Computer Science & Communication Studies, 2023)
Dissertation: [Auditing Algorithmic Communication Flows.](#)

University of Kentucky (M.S. Computer Science, 2018)

Wheaton College, IL (B.S. Computer Science, 2016)

Teaching Experience

ASSISTANT PROFESSOR, TRANSYLVANIA UNIVERSITY – LEXINGTON, KY – FALL 2023 - PRESENT

Courses taught in first year include: Introduction to Computer Science (three total sections), Human-Computer Interaction, and Algorithmic Fairness and Bias. All undergraduate classes with less than 20 students.

INSTRUCTOR, NORTHWESTERN UNIVERSITY – EVANSTON, IL – WINTER 2021 AND FALL 2022

Upper-level seminar with 15 undergraduate students, taught independently. Course covered social and ethical issues in computing, and guided students to complete a 20-page research paper by the end of the 10-week quarter.

TEACHING ASSISTANT, NORTHWESTERN UNIVERSITY – EVANSTON, IL – SPRING 2021 AND 2022

Teaching assistant for Dr. Adam Waytz's ethics class, Kellogg School of Management.

INSTRUCTOR, NORTHWESTERN UNIVERSITY – EVANSTON, IL – WINTER 2020 AND 2021

Taught introductory programming concepts to undergraduate students as part of the "Computing Everywhere" series in the communication department.

Research Experience

PHD CANDIDATE, NORTHWESTERN UNIVERSITY – EVANSTON, IL – 2018 - 2023

Mainline research in auditing algorithmic platforms (e.g. Apple News, TikTok, Twitter) and their impact on mass communication. Advised by Dr. Nicholas Diakopoulos, Computational Journalism Lab.

MACHINE LEARNING ETHICS INTERN, TWITTER INC. – REMOTE – FALL 2021

Researched exposure to marginal content across Twitter using real-world, petabyte-scale datasets. Results from my work have been submitted for publication.

GRADUATE RESEARCH ASSISTANT, UNIVERSITY OF KENTUCKY – LEXINGTON, KY – 2016 - 2018

Applied deep learning to identify ink in microCT scans of ancient scrolls, culminating in a PLOS ONE publication. Advised by Dr. Brent Seales.

RESEARCH ASSISTANT, UNC CHARLOTTE – CHARLOTTE, NC – SUMMER OF 2015 & 2016

National Science Foundation's Research Experience for Undergraduates at UNC Charlotte. Resulted in PerCom publication. Advised by Dr. Jamie Payton.

Select Peer-Reviewed Publications

Bandy, J., & Diakopoulos, N. (2021) Facebook's News Feed Algorithm and the 2020 US Election. *Social Media + Society*. September 2023.

Bandy, J., & Lazovich, T. (2023). Exposure to Marginally Abusive Content on Twitter. ICWSM 2023.

Bandy, J. (2022). Inspecting Algorithmic Flows: Ethics, Transparency, and Accountability for Digital Mass Communication Platforms. AIES 2022, Student Track.

Bandy, J., & Diakopoulos, N. (2021) Curating Quality? How Twitter's Timeline Algorithm Treats Different Types of News. *Social Media + Society*. July 2021.

Bandy, J., & Vincent, N. (2021) Addressing "Documentation Debt" in Machine Learning Research: A Retrospective Datasheet for BookCorpus. NeurIPS 2020, Datasets Track.

Bandy, J., & Diakopoulos, N. (2021) More Accounts, Fewer Links: How Algorithmic Curation Impacts Media Exposure in Twitter Timelines. CSCW 2021.

Bandy, J., & Hecht, B. (2021) Errors in Geotargeted Display Advertising: Good News for Local Journalism? CSCW 2021.

Bandy, J. (2021) Problematic Machine Behavior: A Systematic Literature Review of Algorithm Audits. CSCW 2021.

Bandy, J., and Diakopoulos, N. (2020) "Auditing News Curation Systems: A Case Study Examining Algorithmic and Editorial Logic in Apple News." ICWSM 2020.

Parker, C. S., Parsons, S., **Bandy, J.**, Chapman, C., Coppens, F., & Seales, W. B. (2019) From invisibility to readability: Recovering the ink of Herculaneum. PLOS ONE.

Workshop Papers, Demos, and Book Chapters

Bandy, J., & Diakopoulos, N. (2023). All the News that's Fit to Tweet: Sociotechnical Local News Distribution from the New York Times to Twitter. Book Chapter for *News Quality in the Digital Era*.

Diakopoulos, N., **Bandy, J.**, & Dambanemuya, H. (2023). Auditing Human-Machine Communication Systems Using Simulated Humans. *Handbook of Human-Machine Communication*.

Bandy, J., & Diakopoulos, N. (2020) #TulsaFlop: A Case Study of Algorithmically-Influenced Collective Action on TikTok. FACctRec Workshop at RecSys 2020.

Hagar, N., **Bandy, J.**, Trielli, D., Wang, Y., & Diakopoulos, N. (2020) Defining Local News: A Computational Approach. *Computation + Journalism Symposium 2020*.

Bandy, J., & Diakopoulos, N. (2019). Getting to the Core of Algorithmic News Aggregators. *Computation + Journalism Symposium 2019*.

Bandy, J. (2018) Interactive Machine Learning for Word Spotting on Damaged Handwritten Documents. University of Kentucky Master's Thesis.

Bandy, J., Knighten, J., & Payton, J. (2016) Demonstrating HighFiveLive: A mobile application for recognizing symbolic gestures. 2016 IEEE PerCom Workshops.

Public Writing

Bandy, J. (2021). "Fixing to Die." Real Life Magazine.

Bandy, J. (2021). "Follow the science, Chicago, and abolish ShotSpotter." Chicago Tribune.

Bandy, J., and Diakopoulos, N. (2021). "Amping up algorithmic transparency to govern online platform power." The Hill.

Community Service and Other Roles

PEER REVIEW – FALL 2020 - PRESENT

Ongoing peer review for conferences and journals in my field, including:

- ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT) (Program Committee Member in 2024)
- ACM Conference On Computer-Supported Cooperative Work (ACM CSCW)
- ACM Conference on Human Factors in Computing Systems (ACM CHI)
- Journal of Social Media & Society
- Journal of Big Data and Society
- Journal of Communication Research
- International Journal of Press and Politics

HUMAN-COMPUTER INTERACTION READING GROUP – SUMMER 2020 - SUMMER 2023

Co-organizer for a graduate student book club at Northwestern University.

AI @ NU GRADUATE STUDENT BOARD MEMBER – SUMMER 2020 - SUMMER 2023

Representing the school of communication for the AI@NU graduate student group. Includes event planning, community engagement, and administration.

PRESENTER, UNCONTROLLED VARIABLES – SUMMER 2021

Provided one of two "scientist presentations" for the Uncontrolled Variables comedy show. The theme for the show was "The Science of Social Media."

VOLUNTEER, FAccT CONFERENCE – SPRING 2021

Helped moderate and facilitate workshops for the 2021 ACM conference on Fairness, Accountability, and Transparency (FAccT).

ELECTION JUDGE – FALL 2020 AND SPRING 2021

Trained and served as an election judge for the city of Chicago in the Fall 2020 general election and the Spring 2022 primary election.

SSRC “NEWS QUALITY IN THE PLATFORM ERA” WORKSHOP – SUMMER 2020

Participant in the SSRC workshop organized around media, technology, and democracy. Writings from this workshop have progressed into a forthcoming book.