Rik Ray, M.A.

rikr.net/ | linkedin.com/in/rikr/ | github.com/rik-r Urbana, IL

EDUCATION

PhD at Institute of Communications Research, College of Media

University of Illinois at Urbana-Champaign

May 2026 (expected)

Dissertation Title: "News as Content: YouTube Platform Logics and the Evolution of News Definitions"

Committee: Harsh Taneja (Chair), Alexandre Gonçalves, Ewa Maslowska, Yan Xia

PhD coursework in Media and Communication

Bowling Green State University 2018 – 2020

MA in Journalism & Mass Communication

University of Calcutta 2014 – 2016

Specialization in Science Communication

BSc (Hons.) in Geology

University of Calcutta 2011 - 2014

Minors in Mathematics and Physics

SKILLS

- Quantitative Research Methods/Analyses: Surveys, content analysis, experiments, digital trace data, psychometric measurement (Classical Test Theory, Item Response Theory), survival analysis, SEM, multi-level modeling, spatial econometrics, quasiexperimental designs and causal inference.
- Qualitative Research Methods/Analyses: Content analysis, textual analysis, in-depth interviews, focus groups, grounded theory methodology.
- Computational Research Methods/Analyses: Data mining, text mining, geospatial analysis and GIS, network analysis, web scraping.
- Programming/Scripting/Ouery Languages: Python, JavaScript, Java, Bash
- Statistical Analysis: R, Stata, SAS, Mplus, Minitab, SPSS
- Analysis Frameworks: Pandas, GeoPandas, NumPy, NLTK, Scikit-Learn, Gensim, PyTorch, Tensorflow, Spark, Hadoop
- Web Frameworks: React, Tailwind CSS, Bootstrap, Astro, Flask, Django, PostgreSQL

- Other Tools and Platforms: Qualtrics (including JavaScript), Comscore, Google Analytics, ArcGIS
- Qualitative Analysis Tools: NVivo, Atlas.ti
- **Design and Production:** Adobe Photoshop, Premiere Pro, After Effects, Audition, Cubase.
- Languages: English, Bengali, and Hindi

RESEARCH

PEER REVIEWED JOURNAL ARTICLES

- **Ray, R.**, Bhalla, S., & Taneja, H. (2025) Partisan news users in the United States and India on either side seldom use fact checkers. *Journal of Communication*. https://doi.org/10.1093/joc/jqaf018
- Ng, Y. M. M., & Ray, R. (2025). The journalists' exodus: Navigating the transition from Twitter to Mastodon and other alternative platforms. *New Media & Society*. https://doi.org/10.1177/14614448251321165
- Bhalla, S., **Ray**, **R.**, & Taneja, H. (2024). When news is entertainment: explaining the persistence of misinformation through the information environment. *Information*, *Communication & Society*. https://doi.org/10.1080/1369118X.2024.2406819
- **Ray, R.** (2023). Online news platforms still matter: Generational news consumption patterns during the 2020 presidential election. *Online Media and Global Communication*, *2*(3), 329-350. https://doi.org/10.1515/omgc-2023-0012
- Ha, L., Ray, R., Guo, K., Chen, P. (2021). U.S. Public Opinion on China and the United States during the U.S.-China Trade Dispute: The Role of Audience Framing and Partisan Media Use. *Journalism & Mass Communication Quarterly*. https://doi.org/10.1177/10776990211049451
- Ha, L., Yang, Y., **Ray, R.**, Matanji, F., Guo, K., Chen, P. (2020). How US and Chinese Media Cover the 2018 Trade Conflict: Peace Journalism and the Foreign Policy Market Equilibrium Hypothesis. *Negotiation and Conflict Management Research*.
- Lu, Y., Ray, R., Ha, L. (2020). Social media news engagement and opinion polarization on China's trade practices: Evidence from a U.S. national survey. *International Journal of Communication*
- Ha, L., Perez, L.A., & Ray, R. (2019). Fake News and Misinformation: A Review of Scholarly Research 2008-2017. *American Behavioral Scientist*. https://doi.org/10.1177/0002764219869402

BOOK CHAPTERS

Ray, R. & Lu, Y. (2022). U.S. Television News Coverage of the Trade War in Partisan and Nonpartisan Media. In Louisa Ha and Lars Willnat (Ed) *The U.S.-China Trade War: War and Peace Journalism in the Digital Age*. East Lansing: Michigan State University Press.

- Ha, L., Yang, Y., **Ray, R.**, Matanji, F., Chen, P., Guo, K., & Lye, N. (2022). Comparing U.S. and Chinese Media Coverage of the U.S.—China Trade War: War and Peace Journalism Practice and the Foreign Policy Market Equilibrium Hypothesis. In Louisa Ha and Lars Willnat (Ed) *The U.S.-China Trade War: War and Peace Journalism in the Digital Age*. East Lansing: Michigan State University Press.
- Ha, L., **Ray**, **R.**, Matanji, F., & Yang, Y. (2022). How News and Fake News About the Trade War Are Shared on Twitter: A Topic Modeling and Content Analysis. In Louisa Ha and Lars Willnat (Ed) *The U.S.-China Trade War: War and Peace Journalism in the Digital Age*. East Lansing: Michigan State University Press.
- **Ray, R.** (2019). Editorial Discourse and Perspectives in Science Communication In M.P. Das (Ed.), *Vistas of Science Communication* (pp. 239-249). Kolkata, WB: ISNA.

REFEREED CONFERENCE PRESENTATIONS

- **Ray, R.** (2023, May). News and sources that matter: Generational news consumption patterns during the 2020 presidential election. *Presented at (OMGC) ICA Preconference on Generation Z and Global Communication*
- Ray, R. (2023, May). Got a minute? Impact of COVID-19 on news engagement and the role of audience availability. *Presented at ICA Preconference on News avoidance, resistance, and related audience practices: definitions, predictors, and consequences*
- **Ray, R.,** Bhalla, S., Taneja, H. (2021, May). Can fact-checkers overcome partisan divides?. *Presented at the 72nd Annual International Communication Association Conference, 2021.*
- **Ray, R.,** Bhalla, S., Taneja, H. (2021, May). Can fact-checkers overcome partisan divides? Evidence from the two largest democracies. *Presented at the 79th Annual Midwest Political Science Conference*, 2022.
- **Ray, R.** (2021, May). Does SNS platform choice matter? Analyzing perceptions of the U.S-China trade conflict through item-response theory. *Presented at the 71st Annual International Communication Association Conference (Virtual) 2021. Presented as one of the top student papers in the Promising Student Research panel of the Information Systems division.*
- Ray, R., Bhalla, S., Taneja, H. (2021, May). Do fact-checkers overcome partisan divides? An investigation of Indian Twitter users. *Presented at the 71st Annual International Communication Association Conference (Virtual)* 2021.
- Ha, L., Ray, R., Chen, P., & Guo, K. (2020, May). How Did War and Peace Journalism Practices in US Media Influence Public Opinion on the US-China Trade War and Perception of Press Performance? *Presented at* 70th Annual International Communication Association Conference (Virtual) 2020.
- Ha, L., Ray, R., Matanji, F., & Yang, Y. (2020, April). The Role of Bots and Human Tweets in Spreading News Media Content and Fake News about the US-China Trade War: A Topic

Modeling and Content Analysis. Presented at Broadcast Education Association Virtual Convention 2020.

Ray, R. & Lu, Y. (2020, April). U.S. Television news coverage of the trade war: Partisan media vs. non-partisan media. *Presented at Broadcast Education Association Virtual Convention* 2020.

Ray, R. (2020, April). Net Neutrality Reaction: Comparing qualitative content analysis of YouTube comments with unsupervised topic modeling. *Presented at Broadcast Education Association Virtual Convention* 2020.

Ha, L., Yang, Y., **Ray, R.**, Matanji, F., Guo, K., Chen, P. (2019, November). How US and Chinese Media Cover the US-China Trade Conflict: A Case Study of War and Peace Journalism Practice and the Foreign Policy Equilibrium Hypothesis. *Presented at NCA Annual Convention, Baltimore, November 2019. Awarded top paper in the peace and conflict division.*

Lu, Y., **Ray, R.**, Ha, L. (2019, November). Using social networking sites for news and opinion polarization on China's trade practice: A national survey of the US population. *Presented at NCA Annual Convention, Baltimore, November 2019.*

Ray, R. (2019, August). Communicating internet policy issues: An Indian perspective. *Presented at SACA Refereed Research Session, AEJMC Annual Conference 2019, Toronto, August 7-10, 2019.*

Ha, L., Perez, L.A., & Ray, R. (2019, April). Mapping Recent Development in Scholarship of Fake News and Misinformation 2008-2017: Disciplinary Contribution, Topics and Impact. *Presented at Broadcast Education Association Convention, Las Vegas, April 2019.*

Mukherjee, S., Sarkar, A., Ray, R. (2013). Shale Gas: A New Frontier. *Poster session presented at the Annual Meet, AAPG Student Chapter, Indian Institute of Technology (Indian School of Mines), Dhanbad, India, March 2013.*

INVITED TALKS

AI in Journalism – All India Radio, Kolkata (December 2021).

TEACHING AND CONSULTING EXPERIENCE

Instructor of Record

- *Advertising 483: Audience Analysis*. University of Illinois Urbana-Champaign (Fall 2022) designed exercises, lectures, and class activities.
- *Journalism 451: Research Methods in Journalism*. University of Illinois Urbana-Champaign (Spring 2021, Online) independently designed curriculum, lectures, exercises, class activities, and evaluations.
- Communication 1020: Introduction to Public Speaking. Bowling Green State University (Fall 2018; Spring 2019, 2020)

Teaching Assistant

- Advertising 305: Advertising Technology and the Digital World. University of Illinois Urbana-Champaign, Instructor: Dr. Jacob Fisher (Fall 2021, Spring 2022) delivered guest lectures on online misinformation.
- Advertising 150: Introduction to Advertising. University of Illinois at Urbana-Champaign, Instructor: Prof. Steve Hall (Fall 2020, Fall 2023) – independently conducted weekly discussion sections.
- *Journalism 1000: Introduction to Journalism in a Democratic Society.* Bowling Green State University, Instructor: Prof. Kelly Taylor (Fall 2019)

Workshop, Consulting, and Mentoring

- Statistics, Data, and Survey Research Consultant. Center for Innovation in Teaching and Learning (CITL), University of Illinois Urbana-Champaign (Jan. 2024 Present)
 - Python I: Introduction to Python. Instructor (Spring 2024, 2025; Fall 2024,2025)
 developed all training materials, recorded official e-learning video series.
 - Python II: Advanced Python. Instructor (Spring 2025; Fall 2025), Assistant (Spring 2024; Fall 2024) – developed all training materials, recorded official elearning video series.
 - o R II: Inferential Statistics in R. Instructor (Fall 2024)
 - o Stata I: Getting Started with Stata. Instructor (Spring 2024)
 - o Stata II: Inferential Statistics in Stata. Assistant (Spring 2024; Fall 2024)
 - o SAS I: Getting Started with SAS. (Spring 2025; Fall 2025)
 - o SAS II: Inferential Statistics in SAS. Assistant (Spring 2025; Fall 2025)
 - Provide comprehensive statistical and research consultation to university faculty, scholars, students, and staff. Assist with research methodology, survey programming, coding, data analysis, and visualization across all colleges and units, including STEM disciplines.

HONORS AND AWARDS

- Second Place Paper (\$200) (OMGC) ICA Preconference, 2023
- Conference Fee Waiver Award MPSA, 2022
- **Promising Student Paper** Information Systems division, ICA, 2021
- Top paper Peace and conflict division, NCA, 2019
- **Junior Research Fellowship** Mass Communication and Journalism, awarded by the University Grants Commission, India (2017, Declined).
- Second Place in poster session AAPG Annual Meet, IIT(ISM) Dhanbad, India (2013).

SERVICE

• Reviewer – Journals: Mass Communication and Society, Online Media and Global Communication, Computational Communication Research. Conferences: International Communication Association (ICA).

- ICR Cohort Representative University of Illinois Urbana-Champaign, Urbana, IL (September 2023 September 2024)
- Organizing Committee Member and Roundtable Moderator ICR Graduate Conference, University of Illinois Urbana-Champaign, Urbana, IL (March 2023)
- Tech Squad Volunteer ICA 2022, Paris
- Treasurer, Graduate Communication Association Bowling Green State University, Bowling Green, OH (May 2019 April 2020)
- Secretary, India Student Association Bowling Green State University, Bowling Green, OH (August 2018 April 2019)
- Editorial Board member, UNICAL (Journal of the Dept of Journalism and Mass Communication) University of Calcutta, Kolkata, India (July 2015 June 2016)

PROFESSIONAL DEVELOPMENT

Certificate Courses

- Successfully completed a certified MOOC course on Social Network Analysis through NPTEL, an initiative of the Ministry of Human Resources Development, Govt. of India (2017).
- Successfully completed a certified MOOC course on Science, Technology, and Society through NPTEL (2017).

Professional Memberships

- Association for Education in Journalism and Mass Communication (AEJMC)
- Broadcast Education Association (BEA)
- International Communication Association (ICA)
- Internet Society

PROFESSIONAL EXPERIENCE

- Illinois Public Media, Urbana, IL
 - o Data Research Analyst Intern (June 2024 Aug. 2024)
 - Analyzed audience engagement patterns using Google Analytics data and natural language processing. Developed time series models to identify relationships between content characteristics and user engagement metrics to optimize digital content strategy and improve audience reach.
- Innovations for Poverty Action
 - o Research Consultant (Mar. 2022 Apr. 2023)
 - Collaborated with Central Bank of Nigeria to develop and implement data analytics solutions for market monitoring and consumer protection.
 Specialized in social media analytics and machine learning approaches for financial sector supervision. Key focus on building sustainable, scalable solutions that could be independently managed by partner institutions.

- Journalism & Mass Communication Quarterly, Bowling Green, OH
 - o Editorial Assistant (Aug. 2018 Aug. 2020)
 - Assist the editor in processing manuscript submissions, conducting plagiarism checks, and corresponding with authors, reviewers, and associate editors.
- All India Radio, Kolkata, India
 - Science Correspondent (Feb. 2017 July 2018)
 - Covered public science events, interviewed scientists and other science communicators.
 - Wrote and presented radio talks on science in English and Bengali, broadcast at national and local level.
- Digit Magazine, Remote
 - o News and feature writer (Aug. 2015 Nov. 2015)
 - Wrote technology news and in-depth feature stories for the magazine's website.

OTHER PROJECTS

- citlR Package Development and Maintenance (2024 Present)
 - Streamlining, packaging, and creating extensive documentation for custom R functions developed at CITL's Data Analytics division at the University of Illinois Urbana-Champaign. Primarily meant to be used for internal projects including survey data analysis, visualizations, and report preparation.
- CITL Data Analytics Public and Internal Wiki Migration (2025 Present)
 - Developing tools for document conversion across various formats and managing team workflows for migrating various public and internal resources at CITL's Data Analytics division from discontinued wiki platform to Github pages.
- Illinois Resource Map (2024)
 - O Developed and implemented an interactive ArcGIS Experience dashboard for the I3 Social Studies Network, a statewide initiative led by Dr. Asif Wilson reaching 5,000+ educators across Illinois. The geospatial visualization tool maps educational and community resources, supporting K-12 social studies teachers in creating inquiry-based, justice-centered learning experiences. This dashboard serves as a critical resource distribution platform for a project impacting over 500,000 students across 500 schools.
- Central Bank of Nigeria Social Media Monitoring (2022 2023)
 - Collaboration with Innovations for Poverty Action (IPA) to assess and develop social listening and monitoring tools for financial inclusion and consumer protection departments.
 - Development of pipeline for data collection and analysis from Twitter and Google app store. Developed sentiment analysis, topic modelling and data classification tools for effective analysis of social media data.
 - o Initial project report submitted in September 2022. Presented progress report at IPA's annual research gathering at Northwestern University in October 2022.
- Twitter fact-checking audiences

(2020 - 2025)

- Project lead developed Python script for accessing Twitter's full-archive searchendpoint of the V2 API (one of the first publicly available wrappers)
- Media Coverage and Public Opinion on the U.S. China Trade War (2019 2022)
 - U.S. national survey on public opinion on the trade war (BGSU Human Subject Review Board Approval # 1362730-1)
 - Helped develop the survey questionnaire with principal investigator, Dr. Louisa Ha.
 - Formulation of research questions, literature review, cleaning and analysis of the dataset, resulting in multiple peer-reviewed journal articles, book chapters, and conference presentations.
 - o Content analysis of mainstream U.S. media coverage of the trade war
 - Helped in developing the coding scheme, collecting news articles, and coding the documents
 - Formulation of research questions, literature review, cleaning and analysis of the dataset, resulting in multiple peer-reviewed journal articles, book chapters, and conference presentations.
 - o Analysis of public tweets related to the trade war
 - Led the data collection, cleaning, and topic modeling analysis of the dataset, resulting in a book chapter and conference presentations.
- Controversial news and media consumption

(2019 - 2020)

- o Focus group study (BGSU Human Subject Review Board Approval # 1493630-2)
 - Conducted focus group interviews of undergraduate students at Bowling Green State University to study the consumption patterns of controversial news and media content in print, television, and the internet.