Nick Hagar

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Education

Ph.D., Media, Technology, and Society, Northwestern University (2023)

Dissertation: "Computational Study of News Systems: Embracing the Complexity Paradigm" Committee: Nicholas Diakopoulos (Chair), Aaron Shaw, and Agnes Horvat

M.A., Media, Technology, and Society, Northwestern University (2020)

B.S., Journalism, Northwestern University (2017)

Professional Experience

Curricular Fellow, University of Minnesota (January 2025-Present)

Postdoctoral Scholar, Generative AI in the Newsroom, Northwestern University (August 2024-Present)

Machine Learning Data Scientist, The New York Times (March 2023-July 2024)

Research Engineer (Contract), Meta (June 2022 - January 2023)

Data Scientist (Contract), Patreon (January - March 2022)

Data Analyst, Fusion Media Group (2017-2018)

Publications

Hagar, N., & Bandy, J. (Forthcoming). Practical Datasets for Analyzing LLM Corpora Derived from Common Crawl. *ICWSM* 2025.

Hagar, N., & Diakopoulos, N. (2023). Algorithmic indifference: The dearth of news recommendations on TikTok. *New Media & Society*.

Hagar, **N.**, & Shaw, A. (2022). Concentration without cumulative advantage: The distribution of news source attention in online communities. *Journal of Communication*.

Hagar, N., DeWilde, B., & Diakopoulos, N. (2021). Anticipating Attention: On the Predictability of News Headline Tests. *Digital Journalism*.

Hagar, **N.**, Wachs, J., & Horvát, E.-Á. (2021). Writer movements between news outlets reflect political polarization in media. *New Media & Society*.

Hagar, N., & Diakopoulos, N. (2019). Optimizing Content with A/B Headline Testing: Changing Newsroom Practices. *Media and Communication*, 7(1), 117.

Working papers

Hagar, N. Classifying news articles from URLs alone: A small-data method for sorting and filtering digital news coverage (Under review).

Hagar, N. Newsroom Layoffs Decrease News Coverage Diversity.

Invited Talks

Panelist. Society for Advancing Business Editing and Writing (SABEW). "Harnessing AI in business journalism: How to transform an existential threat into a competitive advantage." Arlington, Virginia. April, 2025.

Conference Presentations

Hagar, N. Parallels in Linking Behavior between Blogs and Substack Newsletters. 2022. ICA. Paris, France.

Hagar, N., Wachs, J., & Horvat, A. Publishing Patterns Reflect Political Polarization in News Media. 2021. Networks 2021. Virtual, July.

Hagar, **N.** Archive Scan: Auditing Digital Archives for News Coverage. 2021. ICA. Virtual, May.

Hagar, N. & Shaw, A. Randomly-Generated Inequality in Online News Communities. 2021. ICA. Virtual, May.

Hagar, N. Layoffs and Newsroom Productivity. 2021. ICA. Virtual, May.

Hagar, N. Save Your Work: How to Archive Online Journalism. 2021. NICAR. Virtual, March.

Hagar, N., Bandy, J., Trielli, D., Wang, Y., & Diakopoulos, N. Defining Local News: A Computational Approach. 2021. Computation + Journalism Symposium. Virtual, February.

Hagar, N., Layoffs and Newsroom Productivity. 2020. IC2S2. Virtual, July.

Hagar, N., Wachs, J., & Horvat, A. The Network Structure of Freelance Journalism. 2020. IC2S2. Virtual, July.

Hagar, N., Bandy, J., Trielli, D., Wang, Y., & Diakopoulos, N. Defining Local News: A Computational Approach. 2020. Computation + Journalism Symposium. Boston, Massachusetts, Conference canceled.

Hagar, N. Simulating Attention Allocation in Online News Communities. 2020. MPSA. Chicago, Illinois, Conference canceled.

Hagar, N. & Horvat, A. The Network Structure of Freelance Journalism. 2019. Complex Networks. Lisbon, Portugal, December.

Grants

Dunford, E., **Hagar**, **N.**, Smith, A., Abbot, R., & Pedraza, K. *Qualify: an R Package for Transparent Data Generation* (Summer Institute in Computational Social Science; \$2,100)

Teaching Experience

Responsible Conduct of Research (Spring 2025). Northwestern University.

Local News + AI (Spring 2025). Co-instructor. Northwestern University.

Cultural Analytics (Fall 2020). Teaching Assistant. Northwestern University.

Relational Databases and TikTok (2021-2023). Computing Everywhere undergraduate seminar. Northwestern University.

Everyday Automation (2019-2021). Computing Everywhere undergraduate seminar. Northwestern University.

Service

Reviewer, New Media & Society (2024)

Reviewer, Journalism Studies (2021, 2024)

Reviewer, CSCW 2021 (2021)

Reviewer, ICA 2021 (2020)

Poster reviewer, CSCW 2020 (2020)

Committee member, InfoSocial 2019 (2019)

Web editor, Computation + Journalism Symposium 2019 (2018)

First-round reviewer, AI and the News Open Challenge (2018)

Software Packages

Hagar, N. (2023). Substack-api: An unofficial Python wrapper around Substack's API. [Python].

Technical Skills

Languages and cloud services: Python, R, SQL, HTML/CSS, Javascript, GCP, AWS

Analysis techniques: NLP (word embeddings, large language models, topic modeling, tagging/annotation), simulation/agent-based modeling, network analysis, machine learning (random forests, neural networks), statistical analysis