

# Zachary Fulker

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## Education:

*Northeastern University, Boston, MA (2018- expected 2023)*

PhD ABD in Network Science, Research Assistant in Collaborative Social Systems Lab

*Dissertation title:* “Self-organizing social systems: The boundaries of cooperation and coordination”

*Committee:* Christoph Riedl (advisor), Rory Smead, Patrick Forber, Alessandro Vespignani

GPA: 3.965

*University of Pittsburgh, Pittsburgh, PA (2014-2018)*

B.S. in Mathematics, Economics; Minor in Applied Statistics, Computer Science

GPA: 3.79, Summa Cum Laude

## Research Interests:

*Topics:* future of work and organization, digital labor platforms, human-AI collaboration, evolutionary game theory, collective intelligence, multi-agent search

*Methods:* agent-based simulations, machine learning, causal inference, network analysis, surveys and digital experiments

## Journal Articles:

Fulker, Z., Forber, P., Smead, R., Riedl, C. (2021). “Spite is contagious on dynamic networks”  
*Nature Communications*, 12(260)

Fulker, Z., Riedl, C. “Cooperation in crowd work: Attitude and perception of freelancers on a knowledge work platform” (Accepted at *ACM CSCW*). [arXiv](#).

## R&Rs and Manuscripts:

Fulker, Z., Forber, P., Smead, R., Riedl, C. “Spontaneous emergence of groups and signaling diversity in dynamic networks” (3<sup>rd</sup> round at *Physical Review E*). [arXiv](#).

Fulker, Z., Riedl, C., Alexy, O. “Sociality in Crowd Markets” (Drafting, targeting *SMJ*)

Fulker, Z., Malhotra, A., Riedl, C. “Stimulation vs. Saturation: The role of diverse exposures in creativity in online innovation communities” (Analysis, targeting *Management Science*)

**Invited Talks and Media Coverage:**

Who wants to cooperate-and why? Attitude and perception of crowd workers in online labor markets. *Reimagining Work Lecture Series (at Upwork)*. March 2023.

Preferential interaction and the emergence of spite. *NetSI Speaker Series*. April 2021.

Here's why spite spreads in people-and thrives in politics. By Allie Nicodemo. *News at Northeastern*. January 2021.

Spite is contagious in dynamic networks. By Zachary Fulker. *Nature Ecology and Evolution Community*. January 2021.

**Service:**

Northeastern Student Government Association Network Science Cohort Liaison (2021-2023)

Web Chair – Collective Intelligence 2020. Boston, MA.

**Teaching:**

NU Program in AI Ethics: Introduction to Machine Learning, Summer 2023. (Instructor)

MISM 6202: Foundations of Data Analysis for Business, Fall 2022. (Teaching Assistant)

MISM 6203: Business Analytics Methods, Fall 2020. (Teaching Assistant)

**Conference Presentations:**

Fulker, Z., Forber, P., Smead, R., and Riedl, C. "Preferential interaction and the emergence of spite." International School and Conference on Network Science. (Conference Presentation). September 2020.

Fulker, Z., Forber, P., Smead, R., and Riedl, C. "Preferential interaction and the emergence of spite." International Conference on Computational Social Science. (Conference Presentation). July 2020.

Fulker, Z., Forber, P., Smead, R., and Riedl, C. "Preferential Interaction and the Emergence of Spite: Endogenous Correlation on an Evolving Network." Collective Intelligence. (Conference Presentation). June 2020.

Fulker, Z., Klein, B., and Riedl, C. "Optimizing the design of rugged landscapes to maximally distinguish models of search behavior in humans." New England Conference on Complex Systems. (Poster). April 2020.

Fulker, Z., Folta, T., and Mentch, L. "The Simple Story of Advanced NBA Metrics." Joint Statistical Meetings. (Poster and Speed-Talk). July 2018.

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**Computer Languages:**

Python, R, C++

**Letter Writers**

Christoph Riedl, D'Amore-McKim School of Business at Northeastern University, Network  
Science Institute

Arvind Malhotra, Kenan-Flagler School of Business at University of North Carolina, The H.  
Allen Andrew Distinguished Professor of Strategy and Entrepreneurship

Rory Smead, Department of Philosophy at Northeastern University, Ronald L. and Linda A.  
Rossetti Professor for the Humanities