Lingfei Wu

Contact Information

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Research Interests

Summary My research advances the **Science of Science** and **Computational Social Science** by using big data, complexity sciences, and AI to understand how team collaboration drives scientific and technological progress—an area known as **Team Science and Innovation**. I publish actively in leading journals, including ***Nature***, ***PNAS***, *Physical Review E*, *Journal of Informetrics*, and *Poetics*.

Leadership I have consulted for major funding agencies—including the Novo Nordisk Foundation and John Templeton Foundation—on research evaluation, and reviewed grants for the **National Science Foundation** (NSF), **Swiss National Science Foundation** (SNSF) and the **Social Sciences and Humanities Research Council of Canada** (SSHRC). I regularly review for *Nature*, *Science*, *PNAS*, *American Journal of Sociology*, *Research Policy*, and actively contribute to the Science of Team Science Conference (SciTS), the International Conference on the Science of Science and Innovation (ICSSI), and the International Conference for Computational Social Science (IC2S2). I co-founded the **Pitt Initiative on Computational Social Science** (PittCSS), which brings together faculty and students across the university for interdisciplinary research.

Keywords Team Science and Innovation, Science of Science, Computational Social Science, Network Science, Complexity Sciences, AI for Science, Applied Data Science

Citations **2,400 | h-index: 19** (Google Scholar, October 2025)

Professional History - Academic Positions

University of Pittsburgh Pittsburgh, PA, USA

2019-Present Assistant Professor, School of Computing and Information

Co-founder, Pitt Initiative on Computational Social Science (PittCSS)

University of Chicago Chicago, IL, USA

2024-Present Affiliated Faculty, Knowledge Lab, Department of Sociology

2016-2018 Postdoctoral Research Fellow

Arizona State University & Santa Fe Institute Tempe, AZ, USA

2014-2015 Postdoctoral Scholar, ASU-SFI Center for Biosocial Complex Systems

Professional History - Industrial Positions

Tencent Holdings Ltd. Beijing, China

2018-2019 Senior Research Scientist, Tencent Research Institute

Baidu, Inc. Beijing, China

2013-2014 Machine Learning Engineer, Department of Personalization and Recommendations

Five Representative Publications

(†: mentored PhD student or postdoc)

[1] Lin, Y.†, Frey, C. B., & Wu, L. (2023). Remote collaboration fuses fewer breakthrough ideas. ***Nature***, 623(7989), 987–991. doi:10.1038/s41586-023-06767-1

Impact factor: 50.5

Repository link: https://www.nature.com/articles/s41586-023-06767-1

[2] Wu, L., Wang, D., & Evans, J. A. (2019). Large teams develop and small teams disrupt science and technology. ***Nature***, 566(7744), 378–382. doi:10.1038/s41586-019-0941-9

Impact factor: 50.5

Repository link: https://www.nature.com/articles/s41586-019-0941-9

[3] Xu, F.†, Wu, L., & Evans, J. (2022). Flat teams drive scientific innovation. ***Proceedings of the National Academy of Sciences (PNAS)***, 119(23): e2200927119. doi:10.1073/pnas.2200927119

Impact factor: 10.6

Repository link: https://www.pnas.org/doi/10.1073/pnas.2200927119

[4] Börner, K., Scrivner, O., Gallant, M., Ma, S., Liu, X., Chewning, K., Wu, L., Evans, J. A. Skill discrepancies between research, education, and jobs reveal the critical need to supply soft skills for the data economy. ***Proceedings of the National Academy of Sciences (PNAS)***, 115(50), 12630–12637. doi:10.1073/pnas.1804247115

Impact factor: 10.6

Repository link: https://www.pnas.org/doi/10.1073/pnas.1804247115

[5] Tong, D.†, Wu, L., & Evans, J. A. (in press). Low-skilled occupations face the highest upskilling pressure. ***Nature Communications***.

Impact factor: 17.2

Repository link: https://arxiv.org/abs/2101.11505

Manuscripts Under Review or In Revision

[1] Cui, H.†, Lin, Y.†, Wu, L., & Evans, J. A. Aging and the narrowing of scientific innovation. Manuscript under review (second round) at ***Science***.

[2] Coles, N. A., Takayanagi, J. F. G. B., Fiore, S. M., & Wu, L. Speed and impact of team science during urgent societal events. Manuscript under review at ***Nature***.

[3] Risha, Z.†, Lin, Y.†, Leahey, E., & Wu, L. The Decline and Power of Generalists in Science. Manuscript under review at ***Proceedings of the National Academy of Sciences (PNAS).***

[4] Li, L., Lin, Y.†, & Wu, L. Innovation by Displacement: Can Recombination Displace Dominant Scientific Ideas. Manuscript under review at ***American Sociological Review***.

Formal Post-Secondary Education

2009-2013 City University of Hong Kong — HongKong, China

Ph.D. in *Media & Communication* (Web Mining Lab)

2010-2011 The Australian National University — Canberra, Australia

Visiting Scholar at the School of Sociology

2010-2010 Wolfram Research — Bulington, VT, USA

Summer School Student in *Computer Simulation*

2006-2009 Peking University — Beijing, China

Master in *Communication*

2002-2006 China University of Political Science and Law — Beijing, China

B. A. in *Political Science*

Publications (Full List)

Journal Article

(†: mentored PhD student or postdoc)

[25] Tong, D. †, Wu, L., & Evans, J. A. (in press). Low-skilled occupations face the highest upskilling pressure. ***Nature Communications***.

Impact factor: 17.2

Repository link: https://arxiv.org/abs/2101.11505

[24] Lin, Y.†, Li, L.†, & Wu, L. (in press). The Disruption Index Measures Displacement Between a Paper and Its Most Cited Reference. ***Quantitative Science Studies***.

Impact factor: 3.5

Repository link: https://arxiv.org/abs/2504.04677

[23] Lin, Y.†, Li, L., & Wu, L. (2025). Team size and its negative impact on the disruption index. ***Journal of Informetrics***, 19(2), 100042. doi:10.1016/j.joi.2025.101678

Impact factor: 4.0

Repository link: https://www.sciencedirect.com/science/article/abs/pii/S1751157725000422

[22] Bornmann, L., Wu, L., & Ettl, C. (2024). The use of ChatGPT for identifying disruptive papers in science: a first exploration. ***Scientometrics***, 129(11), 7161–7165. doi:10.1007/s11192-024-05176-z

Impact factor: 4.1

Repository link: https://link.springer.com/article/10.1007/s11192-024-05176-z

[21] Lin, Y.†, Frey, C. B., & Wu, L. (2023). Remote collaboration fuses fewer breakthrough ideas. ***Nature***, 623(7989), 987-991. doi:10.1038/s41586-023-06767-1

Impact factor: 50.5

Repository link: https://www.nature.com/articles/s41586-023-06767-1

[20] Xu, F.†, Wu, L., & Evans, J. (2022). Flat teams drive scientific innovation. ***Proceedings of the National Academy of Sciences***, 119(23), e2200927119. doi:10.1073/pnas.2200927119

Impact factor: 10.6

Repository link: https://www.pnas.org/doi/10.1073/pnas.2200927119

[19] Wu, L., Kittur, A., Youn, H., Milojević, S., Leahey, E., Fiore, S. M., & Ahn, Y. Y. (2022). Metrics and mechanisms: Measuring the unmeasurable in the science of science. ***Journal of Informetrics***, 16(2), 101290. doi:10.1016/j.joi.2022.101290

Impact factor: 4.0

Repository link: https://www.sciencedirect.com/science/article/abs/pii/S1751157722000426

[18] Lin, Y.†, Evans, J. A., & Wu, L. (2022). New directions in science emerge from disconnection and discord. ***Journal of Informetrics***, 16(1), 101234. doi:10.1016/j.joi.2021.101234

Impact factor: 4.0

Repository link: https://www.sciencedirect.com/science/article/abs/pii/S175115772100105X

[17] Linzhuo, L., Lingfei, W., & James, E. (2020). Social centralization and semantic collapse: Hyperbolic embeddings of networks and text. ***Poetics***, 78, 101428. doi: 10.1016/j.poetic.2019.101428

Impact factor: 2.3

Repository link: https://www.sciencedirect.com/science/article/abs/pii/S0304422X1830295X

[16] Xu, H., Zhang, Z., Wu, L., & Wang, C. J. (2019). The Cinderella Complex: Word embeddings reveal gender stereotypes in movies and books. ***PLoS ONE***, 14(11), e0225385. doi: 10.1371/journal.pone.0225385

Impact factor: 3.2

Repository link: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0225385

[15] Wu, L., Wang, D., & Evans, J. A. (2019). Large teams develop and small teams disrupt science and technology. ***Nature***, 566(7744), 378-382. doi:10.1038/s41586-019-0941-9

Impact factor: 50.5

Repository link: https://www.nature.com/articles/s41586-019-0941-9

[14] Börner, K., Scrivner, O., Gallant, M., Ma, S., Liu, X., Chewning, K., Wu, L., & Evans, J. A. (2018). Skill discrepancies between research, education, and jobs reveal the critical need to supply soft skills for the data economy. ***Proceedings of the National Academy of Sciences***, 115(50), 12630-12637. doi:10.1073/pnas.1804247115

Impact factor: 10.6

Repository link: https://www.pnas.org/doi/10.1073/pnas.1804247115

[13] Wu, L., & Wang, C. J. (2016). Tracing the attention of moving citizens. ***Scientific Reports***, 6(1), 33103. doi:10.1038/srep33103

Impact factor: 4.3

Repository link: https://www.nature.com/articles/srep33103

[12] Wang, C. J., Wu, L., Zhang, J., & Janssen, M. A. (2016). The collective direction of attention diffusion. ***Scientific reports***, 6(1), 34059. doi:10.1038/srep34059

Impact factor: 4.3

Repository link: https://www.nature.com/articles/srep34059

[11] Wang, C. J., & Wu, L. (2016). The scaling of attention networks. ***Physica A: Statistical Mechanics and its Applications***, 448, 196-204. doi:10.1016/j.physa.2015.12.081

Impact factor: 2.8

Repository link: https://www.sciencedirect.com/science/article/abs/pii/S0378437115011097

[10] Wu, L., Baggio, J. A., & Janssen, M. A. (2016). The role of diverse strategies in sustainable knowledge production. ***PLoS ONE***, 11(3), e0149151. doi:10.1371/journal.pone.0149151

Impact factor: 3.2

Repository link: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149151

[9] Zhang, J., Li, X., Wang, X., Wang, W. X., & Wu, L. (2015). Scaling behaviours in the growth of networked systems and their geometric origins. ***Scientific Reports***, 5(1), 9767.

doi:10.1038/ srep09767 Impact factor: 4.3

Repository link: https://www.nature.com/articles/srep09767

[8] Li, X., Wang, X., Zhang, J., & Wu, L. (2015). Allometric scaling, size distribution and pattern formation of natural cities. ***Palgrave Communications***, 1(1), 1-11. doi: 10.1057/palcomms.2015.17

Impact factor: 3.9

Repository link: https://www.nature.com/articles/palcomms201517

[7] Wu, L., Zhang, J., & Zhao, M. (2014). The metabolism and growth of web forums. ***PLoS ONE***, 9(8), e102646. doi:10.1371/journal.pone.0102646

Impact factor: 3.2

Repository link: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0102646

[6] Wu, L., & Ackland, R. (2014). How Web 1.0 fails: the mismatch between hyperlinks and clickstreams. ***Social Network Analysis and Mining***, 4, 1-7. doi:10.1007/s13278-014-0202-8

Impact factor: 2.8

Repository link: https://link.springer.com/article/10.1007/s13278-014-0202-8

[5] Zhang, J., & Wu, L. (2013). Allometry and dissipation of ecological flow networks. ***PLoS ONE***, 8(9), e72525. doi:10.1371/journal.pone.0072525

Impact factor: 3.2

Repository link: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0072525

[4] Wu, L., & Zhang, J. (2013). The decentralized flow structure of clickstreams on the web. ***The European Physical Journal B***, 86, 1-6. doi:10.1140/epjb/e2013-40132-2

Impact factor: 1.5

Repository link: https://link.springer.com/article/10.1140/epjb/e2013-40132-2

[3] Wu, L., & Zhang, J. (2011). Accelerating growth and size-dependent distribution of human online activities. ***Physical Review E***, 84(2), 026113. doi:10.1103/PhysRevE.84.026113

Impact factor: 4.2

Repository link: https://journals.aps.org/pre/abstract/10.1103/PhysRevE.84.026113

[2] Wu, L., (2011). The accelerating growth of online tagging systems. ***The European Physical Journal B***, 83, 283-287. doi:10.1140/epjb/e2011-20187-9

Impact factor: 1.5

Repository link: https://link.springer.com/article/10.1140/epjb/e2011-20187-9

[1] Wu, L., Cai, Y., & Liu, D. (2011). Online shopping among Chinese consumers: An exploratory investigation of demographics and value orientation. ***International Journal of Consumer***

Studies, 35(4), 458-469. doi:10.1111/j.1470-6431.2010.00982.x

Impact factor: 9.7

Repository link: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1470-6431.2010.00982.x

Book Chapter

[2] Wu, L. (2015). The Stream of Beautiful Attention. In J. Zhang (Ed.), The Ultimate in Science: A Casual Talk on Artificial Intelligence [Chapter 9] (pp. 197 – 218). Beijing: People's Posts and Telecommunications Press. ISBN: 9787115397223

[1] Wu, L. (2014). *Data Mining in Social Science*. eBook. Available at: https://lingfeiwu.gitbooks.io/data-mining-in-social-science/content/

Grants

2025–2027 **The Spencer Foundation** (Round-2 Review)

PI, "*The Lost Curie? Linking Doctoral Training to Scientific Innovation and Opportunity*."

Collaborative project with Co-PI Daniel McFarland (Stanford University).

Proposed budget: $375,000

2025–2027 **National Institutes of Health: National Institute of General Medical Sciences (R01)**

PI, "*The Anatomy of Scientific Biomedical Open-Source Software — From Code to Communities*."

Collaborative project with PI Bogdan Vasilescu (Carnegie Mellon University).

Proposed budget: $450,000

2023-2028 **National Science Foundation: Science of Science Program (CAREER)**

PI, "*How Does Core Scientific Knowledge Advance? Understanding Team Innovation at the Foundations of Sciences*."

Awarded budget: $565,087

2020 - 2021 **Richard King Mellon Foundation**

PI, "*Sideline to Frontline: Data-driven Technologies to Reskill Displaced Workers for Healthcare Economy and Beyond*."

Awarded budget: $100,000

2020 - 2021 **Pitt Institute for Cyber Law, Policy, and Security**

PI, "*Measuring Worldviews: A Map of Stubborn Social Skills*."

Awarded budget: $6,500

2016 - 2021 **Kaifeng Foundation: Complexity Science Program**

Co-PI, "*Complex Systems, Geometry, and Machine Learning Workshops*."

PI: Jiang Zhang (Beijing Normal University).

Awarded budget: $221,465

2018 - 2019 **Tencent Research Institute: Computational Social Science Program**

Co-PI, "*Tencent & Tsinghua AI and Public Policy Workshops*."

PI: Jiang Zhang (Beijing Normal University).

Awarded budget: $43,700

2018 - 2021 **National Science Foundation: Social, Behavioral and Economic Sciences**

Senior Personnel, "*Understanding Team Success and Failure*."

PIs: Dashun Wang (Northwestern University) and James Evans (University of Chicago).

Awarded budget: $592,772

2014 - 2016 **Australian Research Council: Discovery Program**

Senior Personnel, "*Understanding Online Attention and User-generated Content Creation*."

PI: Robert Ackland (Australian National University).

Awarded budget: $225,000

Selected Awards & Honors

2025 Elected Full Member, *Sigma Xi: The Scientific Research Honor Society*

2023 NSF CAREER Award, *National Science Foundation*

2023 Oxford Martin Fellowship, *University of Oxford*

2010 Richard King Mellon Award, *Richard King Mellon Foundation*

2019 Top 100 Most-Discussed Papers Across All Sciences, *Altmetric*

2009 Best Student Paper Award, *Chinese Association for Journalism and Communication*

2009 Student Travel Award, *Agricultural and Applied Economics Association Conference*

2008 P&G Best Student Paper Award, *China Marketing Research Association*

2006 China National Petroleum Corporation Scholarship, *Peking University*

2002 National Scholarship, *Chinese Ministry of Education*

Teaching Experiences

2019-Present Lecture, **Information Visualization (INFSCI 2415)** – Enrollment: 30–50
M.S. in Information Science program
B.S. in Information Science program

2022-Present Lecture, **Data Mining (INFSCI 1530/2160)** – Enrollment: 40–50
M.S. in Information Science program
B.S. in Data Science program
B.S. in Computational Social Science program

2020-2021 Lecture, **Computational Social Science Doctoral Seminar (INFSCI 3350)** – Enrollment: 4–7
Ph.D. in Information Science program

Open Science & Software

2016 Wu, L., & Wang, C.J., **scholarNetwork**

This Python package is designed to assist researchers in web-scraping, analyzing, and visualizing collaboration networks based on Google Scholar data. It is built upon BeautifulSoup and NetworkX and integrated into pip, the standard tool for installing Python packages.

Reference manual: https://pypi.org/project/scholarNetwork/

keynotes and Invited Talks

2025 Summer Institute in Computational Social Science (SICSS), **NYU Shanghai** — *Invited Talk*, Shanghai, China

2025 Workshop on Investments in Early Career Scientists**, National Bureau of Economic Research (NBER)** — *Panel Speaker*, Washington, DC

2025 Workshop on Scientific Computing Ecosystems, **Argonne National Laboratory** — *Panel Speaker*, Chicago, IL

2025 AI and Science and Technology Innovation Workshop, **iConference** — *Invited Talk*, Bloomington, IN

2025 Institute for New Economic Thinking, **University of Oxford** — *Invited Talk*, Oxford, UK

2025 Martin School Seminars, **University of Oxford** — *Invited Talk*, Oxford, UK

2025 Workshop on Bibliometric Measures of Epistemic Change, **Technische Universität Berlin**, Institute for Philosophy and Science Studies— *Panel Speaker*, Berlin, Germany

2024 Symposium on Deep Description in the Age of Computational Social Science, **City University of Hong Kong** — *Panel Speaker*, HK, China

2024 Workshop on Cross-Disciplinary Challenges and Opportunities in AI Applications to Science and Engineering (C^2OA^2SE), **Michigan Tech Research Institute** — *Invited Talk*, Ann Arbor, MI

2023 **The Science of Team Science (SciTS) Conference** — *Keynote Speaker*, Bethesda, MD

2023 Workshop on Complex Systems and 21st Century Challenges, **Santa Fe Institute** — *Invited Talk*, Santa Fe, NM

2023 Department of Computer Science, **Tsinghua University**— *Invited Talk*, Beijing, China

2023 School of Information Management, **Nanjing University** — *Invited Talk*, Nanjing, China

2023 Department of Sociology, **Zhejiang University**— *Invited Talk*, Zhejiang, China

2023 Teams Conference, Paul Merage School of Business, **UC Irvine** — *Invited Talk*, Irvine, CA

2022 Computational Social Science Seminars, Institute for Software Research, **CMU** — *Invited Talk*, Pittsburgh, PA

2022 Workshop on Investments in Early Career Scientists, **National Bureau of Economic Research (NBER)** — *Panel Speaker*, Washington, DC

2022 Knowledge Evolution and Trajectories of Structural Transformation Workshop, **Complexity Science Hub** — *Invited Talk*, Vienna, Austria

2021 The Office of Scientific Research, **Peking University** — *Invited Talk*, Beijing, China

2020 Computational Communication Research Lab, **UC Davis** —*Invited Talk*, Davis, CA

2019 Computational Communication Summer School, School of Journalism & Communication, **Nanjing University** — *Invited Talk*, Nanjing, China

2019 Data Labs, **Pew Research Center** — *Panel Speaker*, Washington, DC

2018 Center for Science of Science and Innovation, **Northwestern University** — *Invited Talk*, Evanston, IL

2018 The Growth Lab, **Harvard Kennedy School** — *Invited Talk*, Cambridge, MA

2018 **Swarma Club** (Beijing) — *Invited Talk*, Beijing, China

2018 **Kaifeng Foundation** — *Invited Talk*, Beijing, China

2018 **National Opinion Research Center** — *Invited Talk*, Chicago, IL

2019 Social Science Research Institute, **Tencent Research Institute** — *Invited Talk*, Beijing, China

2018 **National Natural Science Foundation of China (NSFC)** — *Invited Talk*, Beijing, China

2016 **Leibniz Institute for the Social Sciences (GESIS)** — *Panel Speaker*, Mannheim, Germany

2016 Computational Social Science Funding Workshop, **Volkswagen Foundation** — *Panel Speaker*, Mannheim, Germany

2011 **The Commonwealth Scientific and Industrial Research Organisation (CSIRO)** — *Invited Talk*, Canberra, Australia

2011 Demographic & Social Research Institute, **Australian National University** — *Invited Talk*, Canberra, Australia

2011 School of Communication and Information, **Nanyang Technological University** — *Invited Talk*, Singapore

Conference Presentations

Li, L., Lin, Y.†, & **Wu, L.** (2025, June). *Can Recombination Displace Dominant Scientific Ideas?* Paper presented at the **International Conference on the Science of Science and Innovation (ICSSI)**, Copenhagen, Denmark.

Risha, Z.†, Lin, Y.†, Leahey, E., & **Wu, L.** (2024, July). The Death of Renaissance Scientists. Paper presented at the Science of Science Funding workshop, **National Bureau of Economic Research Summer Institute (NBER SI)**, Cambridge, MA.

Li, L., Lin, Y.†, & **Wu, L.** (2023, July). *How Can Interdisciplinary Collaboration Be Disruptive? A Preliminary Study.* Paper presented at the **International Conference of the International Society for Scientometrics and Informetrics (ISSI)**, Bloomington, IN.

Li, L., Lin, Y.†, & **Wu, L.** (2022, June). *Replacing the Renaissance man: Are teams more than the sum of Their Parts?* Paper presented at the **International Conference on the Science of Science and Innovation (ICSSI)**, Washington, DC.

Wu, L., Tutterow, C., & Evans, J. (2020, July). *Skill Embeddings Reveal Deep Complementarity of*

Human Capital for Career Advancement. Paper presented at the **International Conference on Computational Social Science (IC2S2)**, Cambridge, MA.

Xu, H., Zhang, Z., Wu, L., & Wang, C.-J. (2019, May). *The Shape of Stories*. Paper presented at the **Network Science Society Annual Conference (NetSci**), Burlington, VT.

Wu, L., Tang, J., Wang, D., & Evans, J. (2018, July). *Only Diamond Can Cut Diamond in Science*. Paper presented at the **International Conference on Computational Social Science (IC2S2)**, Chicago, IL.

Wu, L., Wang, D., & Evans, J. (2017, June). *Small Teams Generate New Directions in Science and Technology*. Paper presented at the **Science of Team Science Conference (SciTS)**, Orlando, FL.

Wu, L., Wang, D., & Evans, J. (2017, June). *Small Teams Disrupt*. Paper presented at the **Network Science Society Annual Conference (NetSci),** Indianapolis, IN.

Wu, L., Zhang, J., Janssen, M., Wang, C.-J., & Zhao, M. (2014, November). *Attention Balls*. Paper presented at the **International Conference on Social Informatics (SocInfo)**, Barcelona, Spain.

Wu, L. (2012, May*). On Predicting the Collective Surfing Behavior*. Paper presented at the **International Communication Association Conference (ICA)**, Phoenix, AZ.

Wu, L. (2010, June). *Birds of a Feather Flock Together*. Paper presented at the **Wolfram Summer School**, Burlington, VT.

Wu, L., & Cai, Y. (2009, July). Value Orientation, Internet Usage, and Online Shopping Adoption: A Structural Equation Modeling Investigation on Chinese Consumers. Paper presented at the **Agricultural and Applied Economics Association Conference (AAEA)**, Milwaukee, WI.

Wu, L., & Liu, D. (2009, March). Chinese Citizens' Attitude Towards Internet Censorship: A Survey in Mainland China, 2005. Paper presented at the **ACM Web Science Conference**, Athens, Greece.

Services

Grant Reviewer and Consultant

National Science Foundation | U.S. Department of Energy | The Social Sciences and Humanities Research Council of Canada | Swiss National Science Foundation | Novo Nordisk Fonden | John Templeton Foundation

Academic Journal Reviewer

General Audience	*Nature* (2023–), *Science* (2024–), *Nature Human Behaviour* (2022–), *Proceedings of the National Academy of Sciences (PNAS)* (2024–), *PNAS Nexus* (2024–), *Scientific Reports* (2023–), *PLoS ONE* (2021–)
Science of Science	*Research Policy* (2025–), *Journal of the Association for Information Science and Technology* (2019–), *Scientometrics* (2024–), *Quantitative Science Studies* (2022–), *Journal of Informetrics* (2024–), *Research Evaluation* (2025–)
Computer Science	*ACM Transactions on Intelligent Systems and Technology* (2025–), *Aslib Journal of Information Management* (2023–), *Aplied Network Science* (2024–), *EPJ Data Science* (2023–)
Physics	*Physical Review X* (2024–), *Physical Review E* (2025–), *Physica A* (2015–)
Management	*Information Processing and Management* (2024–)
Sociology	*American Journal of Sociology* (2023–), *The Journal of Mathematical Sociology* (2025–)
Communication	*Annals of the International Communication Association* (2025–)

Conference Reviewer and Panel Chair

International Conference on the Science of Science and Innovation (ICSSI) | International Conference on Computational Social Science (IC2S2) | International Society for Scientometrics and Informetrics (ISSI) | International Science of Team Science Conference (SciTS) | Network Science Society Annual Conference (NetSci) | The Web Conference (WWW) | Conference on Complex Systems (CCS) | iConference | AI for the Science of Science (AI4SciSci 2025, JCDL)

Conference and Workshop Organizer

Quantifying Science Satellite, CSS 2015, Co-Organizer, Phoenix, AZ

Knowledge Networks in Science and Technology Satellite, NetSci 2017, Co-Organizer, Indianapolis, IN

Frontiers in AI and Public Policy Workshop, Tsinghua University School of Public Policy 2017, Lead Organizer, Beijing, China

Machine Learning and Network Science Satellite, NetSci 2019, Co-Organizer, Burlington, VM

Science of Team Science Conference, SciTS 2022, Co-Organizer, Virtual Conference

Team Science and Innovation Satellite, NetSci 2022, Lead Organizer, Shanghai, China

Workshop on Interdisciplinary Research, ISSI 2023, Lead Organizer, Bloomington, IN

AI for Science and Innovation Workshop, iConference 2025, Co-Organizer, Bloomington, IN

University Service

School Academic Council (2025)

School Faculty Council, Member (2024)

Department Ph.D. Program Admissions Committee, Member (2024)

Department Master's Program Admissions Committee, Member (2023–Present)

Department Student Awards and Scholarships Committee, Member (2022)

School Ad hoc Committee on Evaluation of Teaching Effectiveness, Member (2021)

School Tenure-Track Faculty Search Committee, Member (2020)

School Graduate Data Science Certificate Design Task Force, Member (2020)

School Research Roundtable on Proposal Writing, Member (2019)

Mentorship & Advising

Ph.D. Students

Lulin Yang (PHD, in progress)

Yiling Lin (PHD, in progress)

Zak Risha (Ph.D. candidate, proposal passed 2024; joint with Erin Walker, Pitt)

Proposal title: "Technology Supported Disciplinary Literacy"

Alireza Javadian Sabet (Ph.D. candidate, proposal passed 2025; joint with Morgan Frank, Pitt)

Proposal title: "Mapping Workforce Adaptability"

Postdocs and Research Assistants

Jiaxin Pei (RA, Faculty placement: UT Austin, iSchool)

Haochuan Cui (Postdoc, Faculty placement: Nanjing Normal University, School of Journalism and Communication)

Fengli Xu (Postdoc joint with James Evans, University of Chicago,

Faculty placement: Tsinghua University, Electrical Engineering Department)

Rongqian Ma (RA, Faculty placement: IU Bloomington, iSchool)

Linzhuo Li (RA, Faculty placement: Zhejiang University, Sociology Department)

Di Tong (RA, PhD program placement: MIT, Sloan School of Management)

Huimin Xu (RA, PhD program placement: UT Austin, iSchool)

Selected Media Coverage

Personal Interview

- Nature News (2025): *Are groundbreaking science discoveries becoming harder to find?* By David Matthews.
- Nature News (2025): *How a PhD student's lab size affects their chance of future academic success.* By Humberto Basilio.
- Science News (2024): *Larger teams worsen academic career prospects*. By Katie L. Burke.
- Brain for Business Podcast (2024): *Why has the Internet not led to an upsurge in innovation?* By Laurence Knell.

- NIH NINDS (2024): *Thriving in Team Science*. By Lauren E. Ullrich.
- Sage (2021): *Ask a Researcher: Lingfei Wu on Computational Social Science*. By Sage Research Methods Team.

Research Coverage

2023 ***Nature*** Paper "Remote collaboration fuses fewer breakthrough ideas"

- *Scientific American*: Collaborating in Person May Spark More Innovative Research. By Simon Makin.
- *Forbes*: Remote Work Reduces Innovation. How To Increase Innovation Wherever You Work. By Tracy Brower.
- *Fortune*: The CEO of a major co-working company says bosses need to create a 'third place' for employees if they want a meaningful office culture. By Trey Williams.
- *The Hill*: Do we really need shared physical offices to collaborate at work? By Gleb Tsipursky.
- *Aviation Week*: Why Boeing Headquarters Should Move Back to Seattle. By Garrett Reim.
- *Nature News*: What science says about hybrid working—and how to make it a success. By David Adam.
- *Physics World*: Get offline and meet in person to make breakthroughs, claims study. By Laura Hiscott.
- *Physics Magazine*: Disruptive Discoveries More Likely between Scientists Who Meet Face to Face. By Katherine Wright.
- *University of Oxford News*: Remote collaborations deliver fewer scientific breakthroughs. By Amjad Parkar.
- *The Tribune (India)*: Scientists working remotely less likely to make breakthroughs than those on-site. By Press Trust of India.
- *Times Higher Education*: Remote collaboration leads to less innovative science. By Jack Grove.
- *Axios*: Remote collaborators don't generate as many breakthrough scientific ideas. By Alison Snyder.

2022 ***PNAS*** Paper "Flat teams drive scientific innovation"

- *Fortune*: The CEO of a major co-working company says bosses need to create a 'third place' for employees if they want a meaningful office culture. By Trey Williams.
- *The Conversation*: Why Meta's embrace of a 'flat' management structure may not lead to the innovation and efficiency Mark Zuckerberg seeks. By Amber Stephenson.
- *China Science Daily*: What Influences the Innovation Capacity of Research Teams? By Bin Chen.

2019 ***Nature*** Paper "Large teams develop and small teams disrupt science and technology"

- *The New York Times*: Can Big Science Be Too Big? By Benedict Carey.
- *The Atlantics*: Small Teams of Scientists Have Fresher Ideas. By Ed Yong.
- *Forbes*: It Takes More Than Members To Make A Team. By Bill Fischer.
- *Harvard Business Review*: When Small Teams Are Better Than Big Ones. By Dashun Wang and James A. Evans
- *MIT Technology Review*: How behemoth companies quash innovation by hindering startups. By Carl Benedikt Frey.
- *The Scientist*: Bigger Is Not Always Better for Team Science. By Ruth Williams.
- *Physics World*: Avoid large groups to be a disruptive scientist. By Michael Allen.
- *Entrepreneur*: Why Size Matters For a Working Team. By Pooja Singh.
- *The Conversation*: Want disruptive research? Go small instead of big. By Viviane Callier.
- *The Japan Times*: Big teams rarely come up with innovations. By Faye Flam.

- *The Globe and Mail*: What's in a team? Advisors find benefits of scale, planning and client experience. By Anna Sharratt.

2019 ***PLoS ONE*** Paper "The Cinderella Complex: Word embeddings reveal gender stereotypes in movies and books"

- *Analytics India Magazine*: This AI Tool Corrects Gender Bias In Portrayal Of Females In Movies. By Shraddha Goled.

2018 ***PNAS*** Paper "Skill discrepancies between research, education, and jobs reveal the critical need to supply soft skills for the data economy"

- *The Conversation*: How to fix the gap between school and work in South Africa. By Kobus Maree.
- *OECD Forum*: Demand for AI skills in jobs: Evidence from online job postings. By Mariagrazia Squicciarini and Heike Nachtigall.
- *Sina*: Small Town Decline and Middle-Class Empty Nest: What Other Social Impacts Will AI Bring? By Liu Peiyuan and Yan Penggao.
- *Complexity Science*: In an Age of Workplace Automation, Being Human Matters. By Santa Fe Institute.
- *Open Science*: Learning as Part of a Community Is a Powerful Skill. By Open Science MOOC.

2013 ***European Physical Journal B*** Paper "The Decentralized Flow Structure of Clickstreams on the Web"

- *EurekAlert!*: Predicting collective online behavior. By Springer.

2011 ***European Physical Journal B*** Paper "The accelerating growth of online tagging systems"

- *Science Daily*: Online activity grows in a similar pattern to those of real-life networks. By Springer.

Computer and Communication Skills

Computing	Python, R, Mathematica, MATLAB, Stata, SPSS, SQL, HLM
Visualization	Adobe Illustrator, D3, Processing
Typesetting	LaTeX, MS Office, Markdown
Language	English, Chinese Mandarin