

Lingfei Wu

CONTACT INFORMATION	School of Computing and Information The University of Pittsburgh Pittsburgh, PA 15260, USA	Voice: (480) 435-2217 E-mail: liw105@pitt.edu Homepage: lingfeiwu.github.io
ACADEMIC POSITIONS	The University of Pittsburgh Assistant Professor, School of Computing and Information, 2019 – <i>present</i> The University of Chicago Postdoctoral Fellow, Department of Sociology, 2016–2019 Arizona State University Postdoctoral Researcher, Global Biosocial Complexity Initiative, 2014 - 2015	
EDUCATION	City University of Hong Kong Peking University China University of Political Science and Law	Communication Ph.D., 2013 Communication M.A., 2009 Political Science B. A., 2006
REPRESENTATIVE RESEARCH PUBLICATIONS	<ul style="list-style-type: none">• Wu, L., Wang, D., & Evans, J. A. (2019). Large teams develop and small teams disrupt science and technology. <i>Nature</i>, 566(7744), 378-382. <p><i>The New York Times</i> Can Big Science Be Too Big? <i>The Atlantic</i> Small Teams of Scientists Have Fresher Ideas <i>Forbes</i> It Takes More Than Members to Make a Team <i>Harvard Business Review</i> When Small Teams Are Better Than Big Ones</p> <ul style="list-style-type: none">• 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. <i>Proceedings of the National Academy of Sciences (PNAS)</i>, 115(50), 12630-12637. <p><i>The Conversation</i> How to fix the gap between school and work in South Africa <i>Complexity Science</i> In an Age of Workplace Automation, Being Human Matters <i>Open Science</i> Learning as Part of a Community Is a Powerful Skill</p> <ul style="list-style-type: none">• Wu, L., & Zhang, J. (2011). Accelerating growth and size-dependent distribution of human online activities. <i>Physical Review E</i>, 84(2), 026113. <p><i>New Scientist</i> Why Social Networks Are Sucking up More of Your Time <i>Science Daily</i> Online Activity Grows in a Similar Pattern to Real-Life Networks <i>Springer Select</i> Predicting Collective Online Behavior</p>	
GRANTS	PI, "Sideline to Frontline: Data-driven Technologies to Reskill Displaced Workers for Healthcare Economy and Beyond", Richard King Mellon Foundation, 2020, \$100k; PI, "Measuring Worldviews: A Map of Stubborn Social Skills", Institute for Cyber Law, Policy, and Security, University of Pittsburgh, 2020, \$6500;	

Co-PI, “Quantifying Hyperlocal Digital Disadvantage: A Path to Supporting Digital Participation”, NSF RAPID, 2020, \$200k

PI, “International Symposium on Complex Systems, Geometry, and Machine Learning”, Kaifeng Foundation, \$442,930, 2016 – 2026.

PI, “International Symposium on Artificial Intelligence and Public Policy”, Tencent Research Institute, \$43,700, 2018.

Co-PI, “Collaborative Research: Understanding Team Success and Failure”, National Science Foundation (NSF) Award #1829344, \$592,772, 2018 – 2021.

Co-PI, “Understanding Online Attention and User-generated Content Creation”, Australian Research Council (ARC) Discovery Grant #140103688, \$225,000, 2014 – 2016.

BOOK

Wu, L. (2014). *Data Mining in Social Sciences*,
<http://lingfeiw.gitbooks.io/data-mining-in-social-science>

PUBLICATIONS (FULL LIST)

1. Li, L., Wu, L., & Evans, J. A. (2020). Social centralization and semantic collapse: Hyperbolic embeddings of networks and text. *Poetics*, 101428.
2. 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).
3. Wu, L., Wang, D., & Evans, J. A. (2019). Large teams develop and small teams disrupt science and technology. *Nature*, 566(7744), 378-382.
4. 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 (PNAS)*, 115(50), 12630-12637.
5. Wu, L., & Wang, C. J. (2016). Tracing the attention of moving citizens. *Scientific Reports*, 6, 33103.
6. Wang, C. J., Wu, L., Zhang, J., & Janssen, M. A. (2016). The collective direction of attention diffusion. *Scientific Reports*, 6, 34059.
7. Wang, C. J., & Wu, L. (2016). The scaling of attention networks. *Physica A: Statistical Mechanics and its Applications*, 448, 196-204.
8. Wu, L., Baggio, J. A., & Janssen, M. A. (2016). The role of diverse strategies in sustainable knowledge production. *PLOS ONE*, 11(3), e0149151.
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, 9767.
10. Li, X., Wang, X., Zhang, J., & Wu, L. (2015). Allometric scaling, size distribution and pattern formation of natural cities. *Palgrave Communications*, 1, 15017.
11. Wu, L., Zhang, J., & Zhao, M. (2014). The metabolism and growth of Web forums. *PLOS ONE*, 9(8), e102646.

12. Wu, L., & Ackland, R. (2014). How Web 1.0 fails: The mismatch between hyperlinks and clickstreams. *Social Network Analysis and Mining*, 4(1), 202.
13. Zhang J. and Wu, L. (2013), Allometry and dissipation of ecological networks. *PLOS ONE*, 8(9), e72525.
14. Wu, L. and Zhang, J. (2013), The decentralized structure of collective attention on the Web. *European Physical Journal B*, 86(6), 266.
15. Wu, L., & Zhang, J. (2011). Accelerating growth and size-dependent distribution of human online activities. *Physical Review E*, 84(2), 026113.
16. Wu, L. (2011), The accelerating growth of online tagging systems. *European Physical Journal B*, 83(2), 283.
17. Wu, L., Cai, Y., and Liu, D. (2011), Online shopping among Chinese consumers: An exploratory investigation of demographics and value orientation. *International Journal of Consumer Studies*, 35(4), 458.

TEACHING

- **Data Visualization**
Information Visualization. University of Pittsburgh (INSCI2415). 2019 – present
Seminar on Data Visualization in Social Sciences. Arizona State University. 2014
- **Machine Learning in Complex Networks**
Network Embeddings to Model Science, Technology, and Economic Growth. University of Pittsburgh (INFSCI 3350). 2020 – present
Seminar on Web Data Mining. Arizona State University. 2014

TALKS

International Conference on Computational Social Science. 2020.
 CMU, Social Cybersecurity Working Group, 2020
 UC Davis, Computational Communication Research Lab, 2020
 Harvard Kennedy School, Center for International Development. 2018
 National Opinion Research Center (NORC). 2018.
 International Conference on Computational Social Science. 2018.
 Science of Team Science Conference. 2018.
 National Natural Science Foundation of China (NSFC). 2018.
 Science of Team Science Conference. 2017.
 International Conference on Social Informatics. 2014.
 International Communication Association Conference. 2012.
 Nanyang Tech. University. School of Comm. and Information. 2011.
 The Commonwealth Scientific and Industrial Research Organisation. 2011.
 Australian National University, Demographic & Social Research Inst. 2011.
 Wolfram Research. 2010.
 Agricultural and Applied Economics Association Conference. 2009.
 ACM Web Science Conference. 2009.

SERVICE

Conference/Workshop Co-Chair/Organizer

- The Web Conference (WWW). 2020
- The Network Science Society Annual Conference (NetSci). 2019
- Conference on Complex Systems (CCS). 2016

Reviewer

- *Journal of the Association for Information Science and Technology (JASIST)*
- *Quantitative Science Studies*
- *Physica A: Statistical Mechanics and its Applications*

SKILLS

Python, R, JavaScript, Mathematica, STATA, IBM SPSS, SQL, Adobe Illustrator, Processing.