Lingfei Wu

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EMPLOYMENT

The University of Pittsburgh

Assistant Professor, School of Computing and Information, 2019 - *present*

The University of Chicago

Postdoctoral Fellow, Department of Sociology, 2016 - *present*

Arizona State University

Postdoctoral Researcher, Global Biosocial Complexity Initiative, 2014 - 2015

EDUCATION

Ph.D. Communication, City University of Hong Kong, 2013

M.A. Communication, Peking University, 2009

B. A. Political Science, China University of Political Science and Law, 2006

SELECTED
PUBLICATIONS

- Wu, L., Wang, D., and Evans, J. A., (2019). Large teams develop and small teams disrupt science and technology. *Nature* (Cover), https://doi.org/10.1038/s41586-019-0941-9

  The New York Times Can Big Science Be Too Big?
  The Atlantic Small Teams of Scientists Have Fresher Ideas
  Forbes It Takes More Than Members to Make a Team
  The Scientist Bigger Is Not Always Better for Team Science
  Phys.org Bigger Teams Aren't Always Better in Science and Tech

- 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.

  Santa Fe Institute In an Age of Workplace Automation, Being Human Matters
  Open Science MOOC Learning as Part of a Community Is a Powerful Skill

- Wu, L., & Zhang, J. (2011). Accelerating growth and size-dependent distribution of human online activities. *Physical Review E*, 84(2), 026113.

  New Scientist Why Social Networks Are Sucking up More of Your Time
  Science Daily Online Activity Grows in a Similar Pattern to Those of Real-Life Networks

- Wu, L. (2011), The accelerating growth of online tagging systems. *European Physical Journal B*, 83(2), 283.

  Springer Select Predicting Collective Online Behavior

GRANTS

- National Science Foundation (NSF) Grant, $592,772, Collaborative Research: Understanding Team Success and Failure, Co-PI (PI: James Evans and Dashun Wang), #1829344, 2018 - 2021.

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

- Kaifeng Foundation, $442,930, International Symposium on Complex Systems, Geometry, and Machine Learning, PI, 2016 - 2026.

- Tencent Research Institute, $43,700, International Symposium on Artificial Neural Networks and Social Science, PI, 2018.

BOOKS

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

PUBLICATIONS

- Wu, L., Li, L., & Evans, J. (2018). Social connection induces cultural contraction: Evidence from hyperbolic embeddings of social and semantic networks. arXiv preprint arXiv:1807.10216. Revise and resubmit, ***Poetics***

- Wu, L., & Wang, C. J. (2016). Tracing the attention of moving citizens. ***Scientific Reports***, 6, 33103.

- Wang, C. J., Wu, L., Zhang, J., & Janssen, M. A. (2016). The collective direction of attention diffusion. ***Scientific Reports***, 6, 34059.

- Wang, C. J., & Wu, L. (2016). The scaling of attention networks. ***Physica A: Statistical Mechanics and its Applications***, 448, 196-204.

- Wu, L., Baggio, J. A., & Janssen, M. A. (2016). The role of diverse strategies in sustainable knowledge production. ***PLOS ONE***, 11(3), e0149151.

- 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.

- Li, X., Wang, X., Zhang, J., & Wu, L. (2015). Allometric scaling, size distribution and pattern formation of natural cities. ***Palgrave Communications***, 1, 15017.

- Wu, L., Zhang, J., & Zhao, M. (2014). The metabolism and growth of Web forums. ***PLOS ONE***, 9(8), e102646.

- Wu, L., & Ackland, R. (2014). How Web 1.0 fails: The mismatch between hyperlinks and clickstreams. ***Social Network Analysis and Mining***, 4(1), 202.

- Zhang J. and <u>Wu, L.</u> (2013), Allometry and dissipation of ecological networks. ***PLOS ONE***, 8(9), e72525.

- <u>Wu, L.</u> and Zhang, J. (2013), The decentralized structure of collective attention on the Web. ***European Physical Journal B***, 86(6), 266.

- <u>Wu, L.</u>, 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

Computational Social Science

Introduction to Computational Social Science. Nanjing University. 2017

Data Mining and Visualization in Social Sciences. Arizona State University. 2014

Machine Learning

Introduction to Artificial Neural Networks. Nanjing University. 2018

Web Data Mining Using Python. Arizona State University. 2014

Marketing

Market Research and Data Mining Peking University. 2008.

TALKS

- 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 Technological University. School of Communication and Information. 2011.
- Commonwealth Scientific and Industrial Research Organization (CSIRO). 2011.
- Australian National University, Demographic & Social Research Institute. 2011.
- Wolfram Research. 2010.
- Agricultural and Applied Economics Association Conference. 2009.
- ACM Web Science Conference. 2009.

SERVICE

Co-Founder
- Swarma Club (Beijing). Since 2009
- Nanjing University, the Computational Communication Collaboratory. Since 2013

Program committee member
- International Symposium on Complex Systems, Geometry, and Machine Learning. 2016 - 2018
- International Symposium on Artificial Neural Networks and Social Science. 2018
- Tsinghua Workshop on AI and Public Policy. 2017
- Conference on Complex Systems, Computational Social Science Satellite Workshop.

Reviewer
- *Physica A: Statistical Mechanics and its Applications*

INDUSTRIAL
POSITIONS

Tencent Research Institute, Consultant, 2018 - *present*
Baidu, Inc., 2013

SKILLS

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

REFERENCES

James A. Evans
Title: Professor
Affiliation: Department of Sociology, The University of Chicago
Email: jevans@uchicago.edu
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Dashun Wang
Title: Associate Professor
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Robert Ackland
Title: Associate Professor
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          The Australian National University, Canberra, Australia