

Bin Zhang

CONTACT INFORMATION

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RESEARCH INTERESTS

Large social network analysis, statistical modeling for social network problems, social media, technology diffusion, business analytics, machine learning

EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Ph.D., Information Systems and Management, Heinz College, May 2012

- Dissertation Title: “Tractable Analysis for Large Social Networks” (Nominee for AIS Best Dissertation Competition, CMU)
- Advisors: David Krackhardt and Ramayya Krishnan

M.S., Machine Learning, School of Computer Science, May 2011

ACADEMIC EXPERIENCE

Department of Management Information Systems
Temple University, Philadelphia, PA

Assistant Professor (research track)

August 2012 – Present

Adjunct Assistant Professor, Data Analytics and Bioinformatics

Nov. 2013 – Pres.

- MIS 2502 Data Analytics (undergraduate core), Spring 2013, Summer 2013, Fall 2013
- MIS 3501 Data-centric application development using PHP (undergraduate core), Fall 2012, Spring 2013, Fall 2013
- Ph.D. student dissertation committee member
- Advisor for Master student research projects, School of Information Systems Management, Carnegie Mellon University

Carnegie Mellon University, Pittsburgh, PA

Teaching Assistant

August 2006 – August 2008, August 2009 – May 2012

- 90-755 Intermediate management science: optimization and multi-criteria methods, Spring 2012.
- 90-775 Intermediate management science: decision and risk modeling, Spring 2012.
- 95-705 Telecommunications management, Fall 2009, Fall 2010.
- 95-710 Economic analysis, Fall 2006.
- 95-730 E-business and management, F07, Sp08, F08, F09, Sp10, F10, Sp11.
- 95-752 Introduction to information security management, Spring 2010, Spring 2011.
- 95-791 Data mining, Spring 2010, Spring 2012.
- 95-852 Analytics and business intelligence, Spring 2010, Spring 2011, Spring 2012.

REFEREED JOURNALS

Zhang, B., Thomas, A. C., Krackhardt, D., Doreian, P., and Krishnan, R. (2013) Contrasting Multiple Social Network Autocorrelations for Binary Outcomes, with Applications to Technology Adoption. *ACM Transactions on Management Information Systems (TMIS)*.

Zhang, Z., **Zhang, B.**, Yoo, Y., and Wattal, S. (2014) Generative Diffusion of Innovations and Knowledge Networks in Open Source Projects. Forthcoming in *Proceedings of 2014 International Conference on Information Systems (ICIS)*, Auckland, New Zealand.

Zhang, B., Susarla, A., and Krishnan, R. (2014) Two-sided Peer Influence on Content Creation in Social Media Platforms. In 2014 China Summer Workshop on Information Management (CSWIM 2014), best paper nominee, Chengdu, China.

Zhang, B., Pavlou, P., Krishnan, R., and Krackhardt, D. (2013) Comparing Peer Influences in Large Social Networks – An Empirical Study on CRBT. In *Proceedings of ICIS 2013*, Milan, Italy.

Um, S., **Zhang, B.**, Yoo, Y., and Wattal, S. (2013) The Architecture of Generativity in a Digital Ecosystem: A Network Biology Perspective. In *Proceedings of ICIS 2013*, Milan, Italy.

Zhang, B., Pavlou, P., Krishnan, R., and Krackhardt, D. (2013) An Empirical Investigation of Contagion on CRBT Adoption. In *Conference on Information Systems and Technology (CIST) 2013*, Minneapolis, MN. (Nominated for best paper award)

Zhang, B., Krishnan, R., and Krackhardt, D. (2012) Network Effects Comparison in Large Social Network – An Empirical Investigation. In *Proceedings of 22nd Workshop on Information Technologies and Systems (WITS 2012)*, Orlando, FL.

Zhang, B., Susarla, A., and Krishnan, R. (2012) Peer Influence, Competition and Content Creation in Social Media Platforms. In *Eighth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR 2012)*, Montreal, Canada.

Zhang, B., Susarla, A., and Krishnan, R. (2012) A Dynamic Analysis of Competition between Content Creators in Social Media Platforms. In *The Winter Conference on Business Intelligence 2012*, Salt Lake City, UT.

Zhang, B., Thomas, A. C., Doreian, P., Krackhardt, D., and Krishnan, R. A Model for the Analysis of Adoption Behavior through Network Effects. In *Proceedings of WITS 2011*, Shanghai, China.

Zhang, B., Krackhardt, D., Krishnan, R., and Doreian, P. An effective and efficient subpopulation extraction algorithm for large social networks. In *Proceedings of ICIS 2011*, Shanghai, China.

Zhang, B., Ma, L., and Krishnan, R. Analysis and Anomaly Detection of SMS Social Networks. In *Proceedings of ICIS 2011*, Shanghai, China.

Zhang, B., Thomas, A. C., Doreian, P., Krackhardt, D., and Krishnan, R. Multiple-Regime Binary Autocorrelation Models for Social Networks. In *CIST 2011*, Charlotte, NC.

Zhang, B., Krackhardt, D., Krishnan, R., and Doreian, P. (2011). Extracting subpopulations from large networks. In *The International Sunbelt Social Network Conference – XXXI*, Tampa, FL.

Zhang, B., Zhou, Y., and Faloutsos, C. (2008). Toward a comprehensive model in internet auction fraud detection. Published in *Proceedings of Hawaii International Conference on Systems Sciences (HICSS) – 41*, Big Island, HI.

Acquisti, A. and **Zhang, B.** (2006). Financial privacy for free? US consumers response to FACTA. In *The Fifth Workshop on the Economics of Information Security (WEIS)*, Cambridge, UK.

INVITED
CONFERENCES &
CONSORTIA

Nikolic, M., **Zhang, B.**, and Obradovic, Z., (2013). A Local Algorithm for Detecting Evolving Communities in Large Weighted Networks. In *INFORMS 2013 Annual Meeting*, Minneapolis, MN.

University of Rochester Big Data Forum 2013, October 2013, Rochester, NY.

ICIS 2012 Junior Faculty Consortium, December 2012, Orlando, FL.

ICIS 2011 Doctoral Consortium, December 2011, Shanghai, China.

INFORMS Future Academician Colloquium 2011, November 2011, Charlotte, NC.

Zhang, B., Thomas, A. C., Krackhardt, D., and Krishnan, R., and Doreian, P. (2011). Auto-probit Model for Multiple Regimes of Network Effects. In *INFORMS 2011 Annual Meeting*, Charlotte, NC.

Doctoral Internationalization Consortium in Information Systems, June 2011, Seattle, WA.

INVITED TALK

A Hierarchical Bayesian Model with multiple network autocorrelation terms. Department of Statistics, Temple University, November 2012.

Auto-probit Model for Multi-network Influences. Center for Data Analytics and Biomedical Informatics, Temple University, November 2012.

Extracting Subpopulations from Large Social Networks. Center for Data Analytics and Biomedical Informatics, Temple University, October 2012.

GRANTS

National Science Foundation

Co-PI

February 2013 – January 2016

The structure and dynamics of generative innovations: An organizational genetics approach, \$237,076.

National Science Foundation

Co-PI

September 2013 – September 2014

VOSS-Collaborative Research: Evolution in Virtualized Design Processes in Project-Based Design Organizations, \$214,590.

Institute for Business and Information Technology, Temple University

PI

April 2013 – April 2014

Analyzing Big Intraorganizational Network Data, \$10,000.

SERVICE

Reviewer

- MIS Quarterly, 2012 to present.
- Information Systems Research, 2013.
- Social Network Analysis and Mining (SNAM), 2012 to present.
- TMIS, 2013.
- ICIS, 2013, 2012, 2003.
- CIST, 2009.
- AMCIS, 2006, 2004 and 2003.
- Electronic Markets, May 2004 (invited reviewer).
- Electronic Government, January 2004.
- IEEE Transaction on Systems, Man, and Cybernetics, Part A: Systems and Humans, June 2003.

Session Chair

- Methods and Models for Big Network Data, INFORMS Annual Meeting, 2013.
- Network Methods, Sunbelt Social Network Conference, 2011.

**ORGANIZATION
ACTIVITIES**

- Member of Institute for Operations Research and the Management Sciences (INFORMS).
- Member of Association of Information Systems (AIS).
- Member of IEEE and Computer Society.
- Member of American Mensa.

CERTIFICATIONS

- SAS Certified Base Programmer
- Oracle Certified Professional Database Administrator
- Microsoft Certified .NET Application Developer
- Microsoft Certified Database Administrator
- Microsoft Certified Systems Engineer

COMPUTER SKILLS

- Languages: Python, PHP, Perl, C, Java.
- Statistical Packages: R, SAS, SPSS.
- DBMS: Oracle, MySQL, DB2
- Operating Systems: Unix/Linux, OS X, Windows.