

De Liu

Professor, Information and Decision Sciences
Xian Dong Eric Jing Professorship for Business Teaching
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ACADEMIC APPOINTMENTS

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| 2020 - present | Professor & Xian Dong Eric Jing Professorship for Business Teaching, University of Minnesota |
| 2017 - 2020 | Associate Professor & 3M Fellow in Business Analytics, University of Minnesota |
| 2014 - 2016 | Associate Professor, University of Minnesota |
| 2013 - 2014 | Alan F. and Irene Bloomfield Associate Professor, University of Kentucky |
| 2010 - 2013 | Associate Professor, University of Kentucky |
| 2004 - 2010 | Assistant Professor, University of Kentucky |
| 2004 | Assistant Instructor, University of Texas at Austin |

EDUCATION

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|-------------|---|
| 2000 - 2004 | Ph.D. in Management Sci and Info Systems, University of Texas at Austin |
| 1998 - 2000 | M.S. in Management Science and Engineering, Tsinghua University |
| 1994 - 1998 | B.E. in Management Information Systems, Tsinghua University |

RESEARCH INTERESTS

Auctions and Mechanism Design, Gamification, Crowdfunding, AI and Augmented Intelligence, Social Media and Social Commerce.

JOURNAL PUBLICATIONS

1. Yumei He, Xincheng Xu, Ni Huang, Yili Hong, and De Liu. Preserving User Privacy Through Ephemeral Sharing Design: A Large-Scale Randomized Field Experiment in the Online Dating Context. *Information Systems Research*, 2024
2. Tao Li, Sean Xu, De Liu, and Yufang Wang. Should E-learning be Interleaved? Theory and Evidence from a Field Experiment. *MIS Quarterly*, 2023
3. Yiting Guo, Yilin Li, De Liu, and Xin (Sean) Xu. Measuring Service Quality Based on Customer Emotion: An Explainable AI Approach. *Decision Support Systems*, 2023
4. Zhigang Cai, Jason Chan, Zihong Huang, and De Liu. Better to Give than to Receive? Impact of Donation Option on Reward-based Crowdfunding Campaigns. *Forthcoming in Information Systems Research*, 2023
5. Yash Babar, Shawn P. Curley, Zhihong Ke, De Liu, and Zachary J. Sheffler. The Effects of Digitally Delivered Nudges in a Corporate Wellness Program. *Journal of Association of Information Systems*, 24(1):136–160, 2023

6. Dongyu Chen, Chengchen Huang, De Liu, and Fujun Lai. The Role of Expertise in Herding Behaviors: Evidence from a Crowdfunding Market. *Electronic Commerce Research*, May 2022
7. He Huang, Zhipeng Li, De Liu, and Hongyan Xu. Auctioning IT Contracts with Renegotiable Scope. *Management Science*, 68(8):6003–6023, 2022
8. Zachary J. Sheffler, De Liu, and Shawn P Curley. Ingredients for successful badges: evidence from a field experiment in bike commuting. *European Journal of Information Systems*, 29(6):688–703, 2020
9. Zhihong Ke, De Liu, and Daniel J. Brass. Do Online Friends Bring Out the Best in Us? The Effect of Friend Contributions on Online Review Provision. *Information Systems Research*, 31(4):1322–1336, 2020
10. Liang Chen, Pei Xu, and De Liu. The Effect of Crowd Voting on Participation in Crowdsourcing Contests. *Journal of Management Information Systems*, 37(2):510–535, 2020
11. Juneyoung Park, De Liu, Mun Y. Yi, and Radhika Santhanam. GAMESIT: A Gamified System for Information Technology Training. *Computers and Education*, 142(December):1–19, 2019
12. Zhihong Ke, De Liu, Alok Gupta, and Daniel Joseph Brass. Assimilate or Differentiate? Contributors’ Choice of Subjects in User-Generated Content. *Decision Sciences*, 51(5):1265–1287, 2019 (**Decision Science Best Paper Finalist**)
13. De Liu and Adib Bagh. Preserving Bidder Privacy in Assignment Auctions: Design and Measurement. *Management Science*, 66(7):3162–3182, July 2020
14. Hong Guo, Xuying Zhao, Lin Hao, and De Liu. Economic Analysis of Reward Advertising. *Production and Operations Management*, 28(10):2413–2430, 2019
15. Pei Xu and De Liu. Product engagement and identity signaling: The role of likes in social commerce for fashion products. *Information and Management*, 56(2):143–154, 2019
16. Gordon Burtch, Yili Hong, and De Liu. The Role of Provision Points in Online Crowdfunding. *Journal of Management Information Systems*, 35(1):117–144, 2018
17. De Liu, Radhika Santhanam, and Jane Webster. Toward Meaningful Engagement: a Framework for Design and Research of Gamified Information Systems. *MIS Quarterly*, 41(4):1011–1034, 2017. Publisher: Working Paper
18. Huaxia Rui, De Liu, and Andrew Whinston. Allocation and Pricing of Substitutable Goods: Theory and Algorithm. *Production and Operations Management*, 26(5):767–783, 2017. Place: San Diego, CA
19. Liang Chen, Zihong Huang, and De Liu. Pure and hybrid crowds in crowdfunding markets. *Financial Innovation*, 2(1):1–19, 2016
20. Radhika Santhanam, De Liu, and Wei Cheng Milton Shen. Gamification of Technology-Mediated Training: Not All Competitions Are the Same. *Information Systems Research*, 27(23):453–465, 2016
21. De Liu, Daniel J. Brass, Yong Lu, and Dongyu Chen. Friendships in Online Peer-to-Peer Lending: Pipes, Prisms, and Relational Herding. *MIS Quarterly*, 39(3):729–742, 2015. arXiv: 1011.1669v3 Publisher: SSRN Working Paper ISBN: 9788578110796
22. De Liu and Siva Viswanathan. Information Asymmetry and Hybrid Advertising. *Journal of Marketing Research*, 51(5):609–624, 2014
23. Jun Li, De Liu, and Shulin Liu. Optimal keyword auctions for optimal user experiences. *Decision Support Systems*, 56(2013):450–461, 2013

24. De Liu, Xun Li, and Radhika Santhanam. Digital Games and Beyond: What Happens When Players Compete? *MIS Quarterly*, 37(1):111–124, 2013
25. Liu Shulin, Jun Li, and De Liu. Multi-attribute Procurement Auctions with Risk Averse Suppliers. *Economics Letters*, 115(3):408–411, 2012
26. De Liu, Jianqing Chen, and Andrew B. Whinston. Ex Ante Information and the Design of Keyword Auctions. *Information Systems Research*, 21(1):133–153, 2010
27. De Liu, Gautam Ray, and Andrew B. Whinston. The interaction between knowledge codification and knowledge-sharing networks. *Information Systems Research*, 21(4):892–906, 2010. ISBN: 10477047
28. Jianqing Chen, De Liu, and Andrew B Whinston. Auctioning Keywords in Online Search. *Journal of Marketing*, 73(4):125–141, 2009
29. Jiming Wu and De Liu. The Effects of Trust and Enjoyment on Intention to Play Online Games. *Journal of Electronic Commerce Research*, 8(2):128–140, 2007. ISBN: 1526-6133
30. De Liu, Xianjun Geng, and Andrew B Whinston. Optimal Design of Consumer Contests. *Journal of Marketing*, 71(4):140–155, 2007. ISBN: 0022-2429
31. De Liu and Jianqing Chen. Designing online auctions with past performance information. *Decision Support Systems*, 42(3):1307–1320, 2006
32. Guoqing Chen, Qiang Wei, De Liu, and Geert Wets. Simple association rules (SAR) and the SAR-based rule discovery. *Computers and Industrial Engineering*, 43(4):721–733, 2002

WORKING PAPERS

1. Yiting Guo, Ximing Yin, De Liu, and Sean Xin Xu. Does Voicebot Gender Matter? Theory and Evidence from Debt-Collection Voicebots. *Under revision at MIS Quarterly*
2. Pei Xu, Yiting Guo, and De Liu. What Products Can Benefit from Augmented Reality? Empirical Evidence from Amazon. *Under revision at Information Systems Research*. Place: Philadelphia, PA
3. Zhihong Ke, De Liu, and Daniel J. Brass. Magnify Cascades of eWOM: The Roles of User and Product Characteristics. *Under revision at Production and Operations Management*
4. Lingli Wang, Yumei He, Ni Huang, De Liu, Xunhua Guo, and Guoqing Chen. The Role of AI Assistants in Livestream Selling: Evidence from A Randomized Field Experiment. *Under revision at Information Systems Research*
5. Zihong Huang and De Liu. Economics of Social Media Fake Accounts. *Under revision at Management Science*
6. Jingzhao An, De Liu, Radhika Santhnam, and Xi Zhao. Bragging on Digital Platforms to Enhance Player Engagement: Insights from a Mobile Game. *Under revision at Information Systems Research*
7. Yi Gao, Dengpan Liu, Hong Guo, Xuying Zhao, and De Liu. Microtasking Design for Self-Improvement Apps: A Present Bias Perspective. *Under revision at MIS Quarterly*, 2022
8. Tao Li, De Liu, and Sean Xu. Re-engage Low Achievers: Effect of Meaningful Tangible Rewards in Gamified Online Learning. *Working paper*, 2020
9. Zhihong Ke, De Liu, and Gediminas Adomavicius. Towards a Measure of Online Review Quality. *Working paper*

10. Zhihong Ke, Huaxia Rui, De Liu, and Alok Gupta. Catch Me if You Can: Thwarting Strategic Manipulation of Online Review Ratings. *Working paper*
11. Xinxue Qu, Hong Guo, Xuying Zhao, and De Liu. Push vs Pull: The Choice of Advertising Formats for Mobile Apps. *Working paper*, 2020
12. Tao Li, De Liu, and Sean Xin Xu. Design Challenge Levels in E-Learning? Insights from a Large-Scale Field Experiment. *Working Paper*, 2020
13. He Huang, De Liu, Yu Tang, and Hongyan Xu. Competing in the Era of Supply Chain Transparency: A Tale of Information Disclosure and Supplier Switching. *Working paper*, 2022

BOOK CHAPTERS

1. De Liu, Jianqing Chen, and Andrew B. Whinston. Current Issues in Keyword Auctions. In Gediminas Admavicius and Alok Gupta, editors, *Handbook of Information Systems: Business Computing*, pages 69–96. Emerald Group Publishing Limited, Bingley, UK, 2009
2. De Liu, Xianjun Geng, and Andrew B. Whinston. Status Seeking and the Design of Online Entertainment Communities. In Apte Uday and Uday Karmarkar, editors, *Managing in the Information Economy: Current Research Issues*, pages 281–304. Springer, 2007
3. Anjana Susarla, De Liu, and Andrew B. Whinston. Peer-to-peer knowledge management. In Clyde W. Holsapple, editor, *Handbook on Knowledge Management*, volume 2, pages 129–139. Springer, Berlin, 2003

CONFERENCE PAPERS & PRESENTATIONS

1. Yiting Guo, Ximing Yin, De Liu, and Sean Xin Xu. How does AI chatbot Gender Affect Customer Repayment Intention. In *2022 POMS International Conference*, Xi'an, China, 2022
2. Yuanyuan Liu, Jason Kuruzovich, and De Liu. Onboarding Players via Bots? A Field Experiment in a Team-based Competitive Multiplayer Game. In *2022 Conference on Artificial Intelligence, Machine Learning, and Business Analytics*, Boston, MA, 2022
3. Yi Gao, Dengpan Liu, Hong Guo, Xuying Zhao, and De Liu. Microtasking Design for Self-Improvement Apps: A Present Bias Perspective. In *Workshop on Economics of Information Systems (WISE)*, Copenhagen, Denmark, 2022
4. Yi Gao, Dengpan Liu, Hong Guo, Xuying Zhao, and De Liu. Microtasking Design for Self-Improvement Apps: A Present Bias Perspective. In *Conference on Information Systems and Technology (CIST)*, Indianapolis, IN, 2022
5. Yi Gao, Dengpan Liu, Hong Guo, Xuying Zhao, and De Liu. Present Bias and Microtasking. In *Theory of Economics in Information Systems (TEIS) Workshop*, San Francisco, CA, 2022
6. De Liu, Lowry Paul, Landers Richard, Nah Fiona, and Santhanam Radhika. Developing Gamification Research in Information Systems. In *AMCIS 2022 TREOs*, Minneapolis, MN, 2022
7. Lingli Wang, Yumei He, Ding Ding, Nina Huang, Yili Hong, Xunhua Guo, De Liu, and Guoqing Chen. Effectiveness of AI Assistance in Live Streaming: A Randomized Field Experiment. In *ICIS 2021 Proceedings*, Austin, Tx, December 2021

8. He Huang, De Liu, Yu Tang, and Hongyan Xu. Competing in the Era of Supply Chain Transparency: A Tale of Information Disclosure and Supplier Switching. In *Production and Operations Management Society (POMS) Annual Conference*, Virtual, 2021
9. Yumei He, Xincheng Xu, Ni Huang, Yili Hong, and De Liu. Preserving User Privacy Through Ephemeral Sharing Design: A Large-Scale Randomized Field Experiment in the Online Dating Context. In *China Summer Workshop on Information Management (CSWIM)*, Virtual, 2021
10. Yumei He, Xincheng Xu, Ni Huang, Yili Hong, and De Liu. Preserving User Privacy Through Ephemeral Sharing Design: A Large-Scale Randomized Field Experiment in the Online Dating Context. In *International Conference on Information Systems (ICIS)*, Austin, TX, 2021 (**Best Paper In Track** - IS Design, Development, and Project Management)
11. Yi Gao, Dengpan Liu, Hong Guo, Xuying Zhao, and De Liu. Present Bias and Microtasking. In *International Conference on Information Systems (ICIS)*, Austin, TX, 2021
12. Yiting Guo, Ximing Yin, De Liu, and Sean Xin Xu. Effect of AI Chatbots' Gender in the Business Context: Empirical Evidence from Debt Collection. In *Academy of Management Conference (AOM)*, Virtual, 2021
13. Yiting Guo, Ximing Yin, De Liu, and Sean Xin Xu. Effect of AI Chatbots' Gender in the Business Context: Empirical Evidence from Debt Collection. In *Conference on Information Systems and Technology (CIST)*, Virtual, 2021
14. Xinxue Qu, Xuying Zhao, Hong Guo, and De Liu. Economic Analysis of Advertising Mechanisms in Mobile Apps Design. In *POMS Annual Conference*, Virtual, 2021
15. Zihong Huang, Xuan Bi, and De Liu. AI-empowered Venture Capital (VC): The Impact of AI Adoption on VC Firms' Success. In *Conference on Information Systems and Technology (CIST)*, Virtual, 2021
16. Zihong Huang and De Liu. Economics of Social Media Fake Accounts. In *Workshop on Information Systems and Economics (WISE)*, 2020. (**Best Student Paper nomination**)
17. Yumei He, Xincheng Xu, Ni Huang, Yili Hong, and De Liu. Preserving User Privacy Through Ephemeral Sharing Design: A Large-Scale Randomized Field Experiment in the Online Dating Context. In *Workshop on Information Systems and Economics (WISE)*, 2020
18. Yumei He, Xincheng Xu, Ni Huang, Yili Hong, and De Liu. Ephemeral Sharing in Online Dating: A Randomized Field Experiment. In *Conference on Digital Experimentation (CODE)*, 2020
19. Zihong Huang, Xuan Bi, and De Liu. AI-empowered Venture Capital (VC): The Impact of AI Adoption on VC Firms' Success. In *Workshop on E-Business (WeB)*, 2020
20. Agnes Yang, De Liu, and Radhika Santhnam. The Impact of Role Coordination on Virtual Team Performance and Player Retention in Esports. In *19th Workshop on e-Business (WeB)*, 2020. (**Best Student Paper nomination**)
21. Yiting Guo, Ximing Yin, De Liu, and Sean Xin Xu. "She is not just a computer": Gender Role of AI Chatbots in Debt Collection. In *International Conference in Information Systems (ICIS)*, India, 2020
22. Tao Li, De Liu, and Sean Xin Xu. Design Challenge Levels in E-Learning? Insights from a Large-Scale Field Experiment. In *International Conference in Information Systems (ICIS)*, India (Best Paper, 2020. (**Best Student Paper in Track** - Digital Learning Environments and Future IS Curricula)
23. Zihong Huang and De Liu. Economics of Social Media Fake Accounts. In *2nd China Workshop on Economics of Information Systems Theory (CWEIST)*, Chongqing, 2020

24. He Huang, De Liu, Yu Tang, and Hongyan Xu. Competing in the Era of Supply Chain Transparency: A Tale of Information Disclosure and Supplier Switching. In *Theory of Economics in Information Systems (TEIS) Workshop*, Newport Beach, California, 2020
25. He Huang, De Liu, Sammi Tang, and Hongyan Xu. Competing in the Era of Supply Chain Transparency: Information Disclosure and Supplier Switching. In *POMS Annual Conference*, Minneapolis, MN, 2020
26. Xinxue Qu, Xuying Zhao, Hong Guo, and De Liu. Economic Analysis of Advertising Mechanisms in Mobile Apps Design. In *POMS Annual Conference*, Minneapolis, MN, 2020
27. Tao Li, De Liu, and Xin (Sean) Xu. The Role of Optimal Challenge in Adaptive E-learning: Evidence from Field Experiments with Middle School Students. In *Conference on Design and Analysis of Experiment*, Knoxville, TN, 2019
28. Tao Li, De Liu, and Xin (Sean) Xu. Re-engaging underachievers: toward a participation internalization approach to gamified online learning design. In *Winter Conference on Business Analytics*, Snowbird, Utah, 2020
29. Yiting Guo, Yilin Li, De Liu, and Xin (Sean) Xu. Infer Service Quality Problems from Sequential Patterns of Customer Emotions. In *Winter Conference on Business Analytics*, Snowbird, Utah, 2020
30. Tao Li, De Liu, and Sean Xu. Does it Pay to Manage Challenge Levels in E-Learning? Insights from Designing and Analyzing a Large-Scale Field Experiment. In *Winter Conference on Business Analytics*, Snowbird, Utah, 2020
31. Tao Li, De Liu, and Xin Xu. Re-engaging underachievers: toward a participation internalization approach to gamified online learning design. In *ICIS 2019 Proceedings*, Munich, Germany, 2019
32. Zachary J Sheffler, Shawn Curley, and De Liu. Do We Need Different Levels of Badges for Users with Different Participation Levels? A Field Experiment from a Bicycle Commuting Program. In *ICIS 2019 Proceedings*, Munich, Germany, 2019
33. He Huang, De Liu, Yu Tang, and Hongyan Xu. Competing in the Era of Supply Chain Transparency: A Tale of Information Disclosure and Supplier Switching. In *China Workshop on Economics of Information Systems Theory (CWEIST)*, Xi'an, China, 2019
34. Zhihong Ke, De Liu, and Gediminas Adomavicius. Are “Helpful” Online Reviews High Quality? An Examination of Online Review Quality and Its Relationship with Helpfulness Votes. In *China Summer Workshop on Information Management*, Shenzhen, China, 2019
35. Pei Xu and De Liu. Mobile Augmented Reality, Product Sales and Online Consumer Reviews: Evidence from a Natural Experiment. In *China Summer Workshop on Information Management*, Shenzhen, China, 2019
36. Yiting Guo, Yilin Li, De Liu, and Xin Xu. Are Callers in a Mode? An Emotion Detection Approach to Call Center Service Quality. In *Winter Conference on Business Analytics*, Snowbird, Utah, 2019
37. Tao Li, Xun Xin, De Liu, and Yufang Wang. Interleaved Learning: A Design Science Approach and Field Experiment. In *ICIS 2018 Proceedings*, San Francisco, CA, 2018
38. Hong Guo, Xuying Zhao, Lin Hao, and De Liu. Economic Analysis of Reward Advertising. In *Smart Data Pricing Workshop*, Minneapolis, MN, 2018
39. De Liu, Liang Chen, and Pei Xu. Why Crowd Pick Different Winners from Experts. In *Data Science for Business and Economics Conference*, West Lafayette, IN, 2018

40. Pei Xu, De Liu, and Joonghee Lee. Mobile Augmented Reality, Product Sales, and Consumer Evaluations: Evidence from a Natural Experiment. In *ICIS 2018 Proceedings*, San Francisco, CA, 2018
41. Huaxia Rui, De Liu, and Andrew Whinston. Allocation and Pricing of Substitutable Goods: Theory and Algorithms. In *Theory of Economics in Information Systems (TEIS) Workshop*, San Diego, CA, 2018
42. Hong Guo, Xuying Zhao, Lin Hao, and De Liu. Economic Analysis of Reward Advertising. *Workshop on Economics of Information Systems (WISE)*, 28(10):2413–2430, 2019. Place: Seoul, South Korea
43. Zhigang Cai, Jason Chan, and De Liu. Better to Give Than to Receive: Impacts of Donation-Based Contribution Schemes on Crowdfunding Outcomes. In *Workshop on Economics of Information Systems (WISE)*, Seoul, South Korea, 2017
44. Zhigang Cai, Jason Cha, and De Liu. Better to Give Than to Receive: Impacts of Donation-Based Contribution Schemes on Crowdfunding Outcomes. In *China Summer Workshop on Information Management (CSWIM)*, Nanjing, China, 2017
45. Yumei He, Xunhua Guo, and De Liu. Is Beauty Helpful? Reviewer Attractiveness And Review Helpfulness. In *Americas Conference on Information Systems*, Boston, MA, 2017
46. Zhihong Ke, De Liu, and Alok Gupta. Peer Effects and the Production of Online Reviews. In *Conference on Information Systems and Technology (CIST)*, Nashville, TN, 2016
47. Zhihong Ke, De Liu, and Alok Gupta. The Ebb and Flow of Online Word of Mouth. In *International Conference on Information Systems (ICIS)*, Dublin, Ireland, 2016
48. De Liu and Adib Bagh. New Privacy-Preserving Ascending Auction for Assignment Problems. In *Workshop of Information Technologies and Systems (WITS)*, Dallas, TX, 2015 (**Best Paper Award Nomination**)
49. Pei Xu and De Liu. Product Popularity and Identity Signaling on Social Shopping Platforms. In *INFORMS Annual Meetings*, Philadelphia, PA, 2015
50. Zhihong Ke and De Liu. Peer Effects and the Production of Online Reviews: A Message Level Analysis. In *ICIS 2015 Proceeding*, Dallas, TX, 2015
51. Liang Chen, Pei Xu, and De Liu. Experts versus the Crowd : A Comparison of Selection Mechanisms in Crowdsourcing Contests. In *Workshop on Information System Economics*, Auckland, Austrilia, 2014
52. Juan Ling, Ajay Mehra, Dan Brass, De Liu, and Steve Borgatti. Coalitions of the mind: Gender, social networks and knowledge production. In *Southern Management Association Meeting*, Savannah, Georgia, 2014 (**Best Paper in Track**)
53. Liang Chen, Pei Xu, and De Liu. Experts versus the Crowd: A Comparison of Selection Mechanisms in Crowdsourcing Contests. In *INFORMS Annual Meetings*, San Francisco, California, 2014
54. Zhihong Ke and De Liu. The role of social networks in online reviewing. In *The 18th Pacific Asia Conference on Information Systems*, Chengdu, China, 2014
55. Pei Xu and De Liu. Social Shopping: The Value of Social Endorsement. In *Statistical Challenges in Ecommerce Research (SCECR)*, Tel Aviv, Israel, 2014
56. De Liu, Mun Yi, Janeyoung Park, and Radhika Santhanam. GAMESIT - A Gaming Shell for Information Technology Skill Development – A Design Science Program. In *WITS Prototype*, Milan, Italy, 2013

57. De Liu and Sun Yang. A Truthful Mechanism for Multi-slot Ad Scheduling with Budget Constraints. In *INFORMS Annual Meetings*, Minneapolis, MN, 2013
58. De Liu and Adib Bagh. A Simple Ascending Auction for Assignment Problems. In *INFORMS Annual Meetings*, Minneapolis, MN, 2013
59. Liang Chen, Pei Xu, and De Liu. Experts versus the Crowd: A Comparison of Rating Mechanisms for Crowdsourcing Platforms. In *China Summer Workshop on Information Management (CSWIM)*, Tianjin, China, 2013
60. De Liu, Yong Lu, and Daniel J Brass. The Prism Effects of Friendships in Online Peer-to-Peer Lending. In *The Fifth Symposium on Financial Intelligence and Risk Management and the Sixth International Workshop of Electronic Payment and Electronic Commerce*, Chengdu, China, 2013
61. De Liu and Adib Bagh. A Simple Ascending Auction for Assignment Problems. In *Fall 2012 Midwest Economics Theory Meeting*, St. Louis, MO, 2012
62. De Liu and Siva Viswanathan. Information Asymmetry and Hybrid Advertising. In *INFORMS Annual Meetings*, Phoenix, AZ, 2012
63. Huaxia Rui, De Liu, and Andrew B. Whinston. Optimal Allocation for Display Advertising. In *InformS Annual Meetings*, Phoenix, AZ, 2012
64. De Liu, Yong Lu, Pei Xu, and Zhexiang Sheng. The Value of Friendship Ties in Online Peer-to-Peer Lending. In *Statistical Challenges in Ecommerce Research (SCECR)*, Montreal, Canada, 2012
65. De Liu and Siva Viswanathan. Information Asymmetry and Hybrid Advertising. In *Theory in Economics of Information Systems (TEIS) Workshop*, Laguna Beach, CA, 2012
66. Liang Chen and De Liu. Comparing Strategies for Winning Expert-rated and Crowd-rated Crowdsourcing Contests: An Exploratory Study. In *Americas Conference on Information Systems (AMCIS)*, Seattle, WA, 2012
67. Huaxia Rui, De Liu, and Andy Whinston. Optimal Allocation for Internet Display Advertising. In *1st Midwest Workshop on Control and Game Theory*, Champaign, IL, 2012
68. Huaxia Rui, De Liu, and Andrew B. Whinston. Optimal Allocation for Display Advertising. In *Workshop on Information System Economics*, Shanghai, China, 2011
69. De Liu and Siva Viswanathan. Information Asymmetry and Hybrid Advertising. In *International Workshop on Data Mining and Audience Intelligence for Online Advertising*, volume 51, pages 609–624, San Diego, CA, 2011. Issue: 5
70. Skaggs Bruce, Alfred Boccia, De Liu, and Peter Mills. Comparing Internal Markets and Hierarchy in the Coordination of Knowledge: A Simulation Analysis. In *Academy of Management Meetings*, San Antonio, TX, 2011
71. Jun Li, De Liu, and Shulin Liu. Optimal Keyword Auctions with Costly Positions. In *Midwest Economic Theory Meeting*, Notre Dame, IN, 2011
72. Huaxia Rui, De Liu, and Andrew B. Whinston. Optimal Allocation for Display Advertising. In *International Workshop on Data Mining and Audience Intelligence for Online Advertising*. San Diego, CA, 2011
73. De Liu and Siva Viswanathan. Information Asymmetry and Hybrid Advertising. In *UCLA Algorithmic Game Theory Workshop*, Los Angeles, CA, 2011

74. De Liu and Siva Viswanathan. Information Asymmetry and Payment Schemes In Online Advertising. In *China Summer Workshop on Information Management*, Wuhan, China, 2010 (**Best Paper Award Nomination**)
75. Juan Ling, Ajay Mehra, Dan Brass, De Liu, and Steve Borgatti. The Time-Contingent Value of Social Capital: Structural Holes, Resources Richness, and Knowledge Production. In *Academy of Management Conference*, Chicago, IL, 2009
76. De Liu, Gautam Ray, and Andrew B. Whinston. The Interaction between Knowledge Codification and Knowledge Sharing Networks. In *INFORMS Conference on Information Systems and Technology*, Washington, D.C., 2008
77. De Liu, Jianqing Chen, and Andrew B. Whinston. Competing Keyword Auctions. In *Workshop on Advertising Auctions*, Chicago, IL, 2008
78. De Liu, Jianqing Chen, and Andrew B. Whinston. Competing Keyword Auctions. In *China Summer Workshop on Information Management*, Shanghai, China, 2007
79. De Liu, Xun Li, and Radhika Santhanam. What makes Game Players Want to Play More? A Mathematical and Behavioral Understanding of Online Game Design. In *Human Computer Interface International Conference*, Beijing, China, 2007
80. De Liu and Jianqing Chen. Competing Keyword Auctions. In *Workshop on Information Systems and Economics*, Montreal, Canada, 2007
81. De Liu, Jianqing Chen, and Andrew B. Whinston. Competing Keyword Auctions. In *Conference on Information Systems and Technology (CIST)*, Seattle, WA, 2007 (**Best Paper Award**)
82. Jianqing Chen, De Liu, and Andrew B. Whinston. Resource packaging in keyword auctions. In *Proceedings of the 27th International Conference on Information Systems*, pages 1999–2013, Milwaukee, WI, 2007
83. De Liu, Jianqing Chen, and Andrew B Whinston. Weighted Unit-Price Auctions. In *Workshop on Sponsored Search Auctions*, Ann Arbor, MI, 2006
84. De Liu, Jianqing Chen, and Andrew B. Whinston. Weighted Unit-Price Auctions as Keyword Auctions. In *Workshop on Information Systems and Economics*, Milwaukee, WI, 2006
85. Jianqing Chen, De Liu, and Andrew B Whinston. Designing Share Structure in Auctions of Divisible Goods. In *Workshop on Sponsored Search Auctions*, Vancouver, BC, Canada, 2005
86. Andrew B. Whinston, Matt Hämäläinen, De Liu, and Xianjun Geng. Interactive Digital Entertainment: A New Direction for IS research. In *International Conference of Information Systems (ICIS)*, Las Vegas, NV, 2005
87. De Liu, Jianqing Chen, and Andrew B. Whinston. Designing Online Auctions with Past Performance Information. In *Workshop on Information Systems and Economics*, Washington, D.C., 2004
88. De Liu and Andrew B. Whinston. An all-pay auction model of contest promotions and its testing using wireless gaming data. In *Big XII Information Systems Research Symposium*, Stillwater, OK, 2003
89. Guoqing Chen, De Liu, and Jiexun Li. Influence and conditional influence-new interestingness measures in association rule mining. In *2001 IEEE International Fuzzy Systems Conference*, Melbourne, Vic., Australia, 2001
90. De Liu and Guoqing Chen. Association Rule Mining Based on a Simple Rule Set. In *IFIP World Computer Congress*, Beijing, China, 2000

INVITED PRESENTATIONS

Could Social Bragging Enhance User Engagement and Consumption in Games – A Longitudinal Field Study. *University of Science and Technology of China (2022)*

AI, Gamification, and Future of Work. *University of Wisconsin-Milwaukee AI/Analytics Conference, Keynote Speech (2022)*

Towards a Measure of Online Review Quality. *UC Irvine (2022), Chongqing University (2022)*

Does Voicebot Gender Matter? Theory and Evidence From Debt-collection Voicebots. *Chongqing University (2022)*

Is Bragging Motivating? The Effect of Bragging on User Engagement and Consumption in Mobile Gaming. *Chongqing University (2021)*

Economics of Fake Social Media Accounts. *University of Rochester (2021), Chongqing University (2021), Maryland (2022)*

Re-engage low achievers: Effect of meaningful extrinsic rewards in gamified online learning. *Arizona State University (2020), Erasmus University Rotterdam (2022)*

Mobile Augmented Reality and Product Sales: Evidence from a Natural Experiment. *Temple University (2019)*

Are “Helpful” Online Reviews High Quality? An Examination of Online Review Quality and Its Relationship with Helpfulness Votes: *Tsinghua University (2019)*

Economic Analysis of Reward Advertising: *Chongqing University (2018)*

Better to Give than to Receive: Impact of Donation-Based Contribution Scheme on Crowdfunding Outcomes of Reward-based Campaigns: *Nanyang Technological University (2018), Beijing Institute of Technology (2018)*

Dynamic Ascending Clock Auction for Privacy-Preserving Assignment: *University of International Business and Economics (2017), Chongqing University (2017), University of Minnesota (Industrial Engineering)*

Experts versus the Crowd: A Comparison of Selection Mechanisms in Crowdsourcing Contests: *McMaster (2015), UT Austin (2015), Renmin University (2016), Beijing University (2017), Emory University (2019)*

Do Online Social Network Friends Make You Write More and Better Reviews: *Utah (2017), Renmin University (2017), Jiangsu University of Science and Technology (2017), National University of Singapore (2018), Tsinghua University (2018)*

Gamification of Technology-Mediated Training: *KAIST (2013)*

Friendships in Online Peer-to-Peer Lending: Pipes, Prisms, and Relational Herding: *George Washington University (2013), RPI (2013), Indiana University (2013), University of Texas at Dallas (2013), Minnesota (2014), University of Oklahoma (2015), University of Minnesota CS department (2016)*

Allocation and Pricing of Substitutable Goods: Theory and Algorithms: *University of Texas at Austin (2011), Baidu Inc. (2011), Tsinghua University (2011), Shanghai University of Finance and Economics (2011), Purdue University (2012)*

Information Asymmetry and Hybrid Advertising: *University of Texas at Austin (2011), University of Minnesota (2011), University of International Business and Economics (2010), Tsinghua University (2010), Southwestern University of Finance and Economics (2010)*

Auctioning Keywords in Online Search: *Baidu Inc. (2010), University of Texas at Austin (2010), University of Kentucky Economics Seminar (2007), UIUC (2006), University of International Business and Economics (2006), Tsinghua University (2006)*

Ex-ante Information and the Design of Keyword Auctions: *Purdue University (2009), University of Maryland (2009), Baidu Inc.(2008), University of Kentucky Computer Science Seminar (2008)*

Digital games and beyond: what happens when players compete?: *University of New Mexico (2010), KAIST (2013)*

Design Online Auctions with Past Performance Information: *University of Kentucky Economics Seminar (2005), University of International Business and Economics (2005), Tsinghua University (2005)*

The Interaction between Knowledge Codification and Knowledge Sharing Networks: *University of Kentucky Management Seminar (2007), Boston University (2006), Georgia Tech (2006)*

Optimal Design of Consumer Contests: *HKUST (2004), University Of Kentucky (2004)*

TEACHING

University of Minnesota

| | |
|----------------|---|
| 2022 – present | IDSC 4444: (Undergraduate) Descriptive and Predictive Analytics |
| 2022 – present | MSBA 6331: (MSBA) Big Data Analytics |
| 2014 – 2021 | MSBA 6330: (MSBA) Big Data Analytics |
| 2016 – 2021 | IDSC 8541: (PhD) Introduction to Economics of Information Systems |
| 2017 – 2020 | Business Analytics for Leaders (Exec Ed) |
| 2018 | IDSC 3103: Data Modeling and Databases |
| 2016 – 2019 | (MSBA) Carlson Analytics Lab Projects, Faculty Advisor |
| 2015 | IDSC 6444: (MBA) Business Intelligence |
| 2014 – 2015 | MSBA 6320: (MSBA) Data Management, Database, and Data Warehousing |

University of Kentucky

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|------|---|
| 2013 | MBA 606: (MBA) Management Information Systems |
| 2011 | DIS 790: (Ph.D.) Economics of Electronic Commerce |

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|----------------|---|
| 2005 – present | AN 450G: Analytics Technologies |
| 2004 – present | AN 306: Analytics Models and Methods |
| 2008 – present | AN 324: Database Management |
| 2010 – 2012 | ACC 324: Accounting Information Systems |
| 2009 | AN 320: Information Systems in the Modern Enterprise |
| 2006 – 2007 | AN 300: Quantitative Analysis in Operations Management |
| 2005 – present | AN 395: Independent Studies on Decision Science and Information Systems |

University of Texas at Austin

| | |
|------|--|
| 2004 | MIS 304: Business Programming using VB.net |
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STUDENTS AND ADVISING

Ph.D. Students Supervision

| | |
|----------------|--|
| 2021 – present | Ramin Zandvakili, Advisor |
| 2020 – 2023 | Zihong Huang, Advisor (Texas Tech University, 2023) |
| 2013 – 2019 | Zhihong Ke, Advisor (Clemson University, 2019) |
| 2011 – 2014 | Pei Xu, Advisor (Auburn University, 2014) |
| 2013 – 2015 | Matt Spradling (CS), Committee Member (University of Michigan-Flint, 2015) |
| 2005 – 2006 | Dan Davenport, Committee Member (University of Kentucky, 2006) |

Visiting Doctoral and Postdoctoral Students

| | |
|-------------|---|
| 2019 – 2021 | Yumei He (Postdoctoral, Tsinghua Univ) |
| 2019 – 2020 | Yiting Guo (Tsinghua Univ) |
| 2019 – 2020 | Tao Li (Tsinghua Univ) |
| 2016 – 2017 | Yumei He (Tsinghua Univ) |
| 2015 – 2016 | Zhigang Cai (Shanghai Jiaotong Univ) |
| 2014 – 2015 | Dongfeng Liu (University of International Business and Economics) |

DBA Student Supervision

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| 2023 | 1 DBA student |
| 2019 | 2 DBA students |
| 2018 | 2 DBA students |
| 2017 | 2 DBA student |

Masters & Undergraduates

| | |
|-------------|--|
| 2019 | Haoda Chu, MS in Data Science Capstone Final Examination Committee |
| 2018 | Liyao Lu, MS in Data Science Capstone Final Examination Committee |
| 2018 | Dhruv M. Dhokalia, MS in Data Science Capstone Final Examination Committee |
| 2017 | Wei Chen, MS in Data Science Capstone Final Examination Committee |
| 2017 | Rohan Sadale, MS in Data Science Capstone Final Examination Committee |
| 2017 | Gaurav Khandelwal, MS in Data Science Capstone Final Examination Committee |
| 2017 | Michael Justice, MS in Data Science Capstone Final Examination Committee |
| 2016 | Zhiyi Li, MS in Computer Science Final Examination Committee |
| 2014 – 2015 | Hannah Stephan, undergraduate honor thesis |

SERVICES

Professional Services - Editorial Appointments

| | |
|----------------------------|---|
| Associate Editor | <i>Information Systems Research</i> , 2012 – 2021 |
| Associate Editor | <i>Journal of Organizational Computing and Electronic Commerce</i> , 2010 – present |
| Guest Associate Editor | <i>MIS Quarterly</i> (2011,2019) |
| Special Issue Guest Editor | <i>Decision Support Systems</i> (2012) |

Professional Services - Conferences and Other

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|-----------|---|
| 2022–2023 | Track Co-chair, ICIS 2023 |
| 2022 | Co-chair for China Workshop on Economics of Information Systems Theory (CWEIST) |
| 2022 | External Tenure and Promotion Letter Writer (4 Cases) |
| 2022 | AMCIS Panel “Developing Gamification Research in Information Systems”, Chair |
| 2021 | External Tenure and Promotion Letter Writer (3 Cases) |
| 2021 | Co-chair for China Workshop on Economics of Information Systems Theory (CWEIST) |
| 2021 | Program Co-chair, China Summer Workshop on Information Systems and Management (CSWIM) |
| 2020 | External Tenure and Promotion Letter Writer (3 Cases) |
| 2020 | Track Co-chair, ICIS 2020 |
| 2020 | Co-chair China Workshop on Economics of Information Systems Theory (CWEIST) |
| 2019 | Co-chair and co-founder of China Workshop on Economics of Information Systems Theory (CWEIST) |

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|----------------|---|
| 2019 – present | Program Committee, WITS (2019, 2020, 2021) |
| 2009 – present | Associate Editor, ICIS (2009, 2011, 2013, ...) |
| 2008 – present | Program Committee, CIST (2008, 2010, 2011, ...) |
| 2006 – present | Session Chair, INFORMS Annual Conference (2006, 2008, 2009, 2013) |
| 2005 – present | Ad hoc reviewer, various conferences including ICIS, HICSS, WeB, ACM E-Commerce, AMCIS, CIST, and CSWIM |
| 2007 – present | Program Committee, China Summer Workshop on Information Management |
| 2018 | Program Committee, Human Computer Interfaces |
| 2014 | Workshop Co-chair, Tenth Ad Auctions Workshop |
| 2014 | Track Co-chair, ICEC |
| 2014 | Track Co-chair, PACIS |
| 2014 | Session Chair, POMS |
| 2009 | Program Committee, International Conference on E-Commerce |

GRANTS

| | |
|-------------|---|
| 2018 – 2019 | Co-Investigator, University of Minnesota NOTIO Grant, \$30,000 |
| 2016 – 2017 | Dean's Small Grant on Badges and Motivation Crowding, \$5000 |
| 2016 – 2019 | Co-investigator, Natural Science Foundation of China Grant on "Equilibrium Analysis of Keyword Auctions: Advertiser's Perspective", No. 71171052. \$76,700 |
| 2015 | PI, SOBACO Micro-grants for "Viral Gamification Design for Mobile Wellness Applications", \$5000 |
| 2011 – 2014 | Co-investigator, Natural Science Foundation of China Grant on "Theory and Applications of Keyword Auctions", No. 71171052. \$78,200 |
| 2012 | Gatton College Entrepreneurship Research Grant, \$20,000 |
| 2011 | Gatton College Entrepreneurship Research Grant, \$10,000 |
| 2005 – 2010 | Gatton College Summer Research Grant, University of Kentucky, \$10,000 |

AWARDS AND RECOGNITION

| | |
|----------------|---|
| 2021 | Best Paper Finalist , Decision Science Journal |
| 2021 | Best Paper In Track , International Conference on Information Systems (ICIS) |
| 2021 | Teacher of the Year , Master of Applied Business Analytics (MABA) |
| 2020 | Outstanding Research Award , Carlson School |
| 2020 – present | Xian Dong Eric Jing Professorship for Business Teaching , Carlson School |
| 2019 | Outstanding Service Award , Carlson School |

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| 2019 | AHRQ Step Up App Challenge Grand Prize \$40,000 (PRISM: PROMIS Reporting Insight System from Minnesota), AHRQ |
| 2017 – 2020 | 3M Fellow in Business Analytics , Carlson School |
| 2015 | Best Paper Nomination , Workshop on Information Technologies and Systems (WITS) |
| 2019 | Outstanding Service Award , Carlson School |
| 2018 | Outstanding Teaching Award , Carlson School |
| 2016 | Teacher of the Year , Master of Science in Business Analytics |
| 2015 | Teacher of the Year , Master of Science in Business Analytics |
| 2014 | Associate Editor of the Year Award by Information Systems Society and Information Systems Research |
| 2014 | Best Paper Award , Southen Management Association Meeting (SMAM) |
| 2013 – 2014 | Alan F. and Irene Bloomfield Professorship , University of Kentucky Gatton College of Business |
| 2012 | Professor of the Month , Alpha Kappa Psi professional business fraternity |
| 2011 | Best Reviewer Award , Information Systems Research |
| 2010 | Best Paper nomination , China Summer Workshop on Information Management (CSWIM) |
| 2007 | Best Paper award , China Summer Workshop on Information Management (CSWIM) |
| 2001 – 2004 | Graduate Research Fellowship , University of Texas at Austin |
| 2000 | Honored Graduate (top 1%) , Tsinghua University |
| 1999 | Academy of Science Fellowship , Tsinghua University |
| 1998 | Outstanding Undergraduate Student Scholarship , Tsinghua University |
| 1997 | Outstanding Undergraduate Student Scholarship , Tsinghua University |
| 1996 | HSBC Scholarship , Tsinghua University |
| 1995 | Jiang Nan-Xiang Scholarship , Tsinghua University |
| 1994 | Outstanding Freshman Fellowship (1st class) , Tsinghua University |

MEDIA MENTIONS

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|---------|--|
| 2022/10 | Axios, “Digital ‘nudges’ to workout do work, study says” |
| 2022/12 | UMN Research Brief, “Digital nudges encourage more exercise” |
| 2019/3 | Star Tribune, McKnight’s Long-Term Care News, PR Newswire, Politico (and 18 other outlets) |
| 2019/1 | Master in Management Guide |
| 2018/3 | MentorStudents.org |
| 2017/7 | Star Tribune |