

De Liu

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ACADEMIC APPOINTMENTS

Associate Professor, University of Kentucky, 2010– Present
Assistant Professor, University of Kentucky, 2004 – 2010
Assistant Instructor, University of Texas at Austin, 2004

EDUCATION

Ph.D. (Management Science and Information Systems), University of Texas at Austin, 2004
M.S. (Management Science and Engineering), Tsinghua University, 2000
B.E. (Management Information Systems), Tsinghua University, 1998

RESEARCH INTERESTS

- Internet advertising and keyword auctions
- Knowledge management and social networks
- Digital games and contests

JOURNAL PUBLICATIONS

Liu, D., Xun Li, and Radhika Santhanam (2012). Digital Games and Beyond: What Happens When Players Compete. Forthcoming at *MIS Quarterly*.

Liu, S., Li, J. & Liu, D. (2012) Multi-attribute Procurement Auctions with Risk Averse Suppliers. *Economics Letters*. 115(3) 408-411.

Liu, D., Ray, G. & Whinston, A.B. (2010) The Interaction between Knowledge Codification and Knowledge Sharing Networks. *Information Systems Research*, 21(4) 892-906.

Liu, D., Chen, J.Q. & Whinston, A.B. (2010). Ex-Ante Information and the Design of Keyword Auctions. *Information Systems Research* 21 (1): 133-153.

Chen, J.Q., Liu, D. & Whinston, A.B. (2009). Auctioning Keywords in Online Search. *Journal of Marketing*, 73(4), 125-141.

Wu, J.M. & Liu, D. (2007). The Effects of Trust and Enjoyment on Intention to Play Online Games. *Journal of Electronic Commerce Research*, 8 (2), 128-140.

Liu, D., Geng, X.J. & Whinston, A. B. (2007). Optimal Design of Consumer Contests. *Journal of Marketing*, 71(4), 140-155.

Liu, D. & Chen, J. Q. (2006). Designing Online Auctions with Past Performance Information. *Decision Support Systems*, 42 (3), 1307-1320.

Chen, G., Wei, Q., Liu, D. & Geert, W. (2002). Simple Association Rules (SAR) and the SAR-based Rule Discovery. *Computers and Industrial Engineering*, 43, 721-733.

WORKING PAPERS

Santhanam, R., Liu, D., Shen, W-C., & Li, X. (2012). Could Information Technology Training Be a Game? Revise and Resubmit at *Information Systems Research*.

Liu, D. & Viswanathan, S. Information Asymmetry and Hybrid Advertising. Revise and Resubmit at *Management Science*.

Li, J., Liu, D. & Liu, S. Optimal Keyword Auctions with Costly Positions. Under review at *Decision Support Systems*.

(With Rui, H., & Whinston, A.B.) Optimal Allocation for Display Advertising.

(With Chen, J.Q., & Whinston, A.B.) Competing Keyword Auctions.

Liu, D. & Sun, Y. A Truthful Mechanism for Multi-slot Ad Scheduling with Budget Constraints.

Ling, J., Mehra, A, Brass, D., Liu, D. & Borgatti, S. The Time-Contingent Value of Social Capital: Structural Holes, Resources Richness, and Knowledge Production.

Skaggs, B., Boccia, A., Liu, D., & Mills, P. Comparing Internal Markets and Hierarchy in the Coordination of Knowledge: A Simulation Analysis.

Chen, L. & Liu, D. Comparing Strategies for Winning Expert-rated and Crowd-rated Crowdsourcing Contests: An Exploratory Study.

BOOK CHAPTERS

Liu, D., Chen, J.Q. & Whinston, A.B. (2009). Current Issues in Keyword Auctions. In Gediminas Admomas and Alok Gupta (Eds.) *Handbook of Information Systems: Business Computing*, (pp. 69-96). Bingley, UK: Emerald Group Publishing Limited.

Liu, D., Geng, X.J. & Whinston, A. B. (2007). Status Seeking and the Design of Online Entertainment Communities. In Apte Uday and Uday Karmarkar (Eds.) *Managing in the Information Economy: Current Research Issues*, (pp. 281-304). New York: Springer.

Susarla, A., Liu, D. & Whinston, A. B. (2003). Peer-to-Peer Enterprise Knowledge Management. In C. W. Holsapple (Ed.) *Handbook on Knowledge Management*, (pp. 129-139). Berlin Germany: Springer.

CONFERENCE PAPERS & PRESENTATIONS

Liu, D., Lu, Y., Xu, P. & Sheng, Z-X. (2012). The Value of Friendship Ties in Online Peer-to-Peer Lending. *Statistical Challenges in Ecommerce Research (SCECR)*, Montreal, Canada.

Rui, H., Liu, D. & Whinston, A.B. (2011). Optimal Allocation for Display Advertising. *Workshop on Information System Economics (WISE)*, Shanghai, China.

Rui, H., Liu, D. & Whinston, A.B. (2011) Optimal Allocation for Display Advertising. *5th International Workshop on Data Mining and Audience Intelligence for Online Advertising*, San Diego, CA.

Liu, D. & Viswanathan, S. (2011). Information Asymmetry and Hybrid Advertising. *5th International Workshop on Data Mining and Audience Intelligence for Online Advertising*, San Diego, CA.

Skaggs, B., Boccia, A., Liu, D. & Mills, P. (2011) Comparing Internal Markets and Hierarchy in the Coordination of Knowledge: A Simulation Analysis. *Academy of Management*, San Antonio, TX.

Liu, D. & Viswanathan, S. (2011). Information Asymmetry and Hybrid Advertising. *Algorithmic Game Theory Workshop at UCLA*, Los Angeles, CA.

Liu, D. & Viswanathan, S. (2010). Information Asymmetry and Payment Schemes In Online Advertising. *CSWIM 2010 (Nominated for Best Paper Award)*, Wuhan, China.

Liu, D. & Viswanathan, S. (2010). Payment Schemes for Internet Advertising: A Tale of Two-sided Information Asymmetry. *2010 Joint Conference on eServices and Business Intelligence*. Chengdu, China.

Ling, J., Mehra, A, Brass, D., Liu, D. & Borgatti, S. (2009) Time-Contingent Value of Social Capital: Structural Holes, Resources Richness, and Knowledge Production. *Academy of Management conference*, Chicago, Illinois.

- Liu, D., Ray, G. & Whinston, A.B. (2008). The Interaction between Knowledge Codification and Knowledge Sharing Networks. INFORMS Conference on Information Systems and Technology (CIST), Washington, D.C.
- Liu, D., Chen, J.Q. & Whinston, A. B. (2008). Competing Keyword Auctions. ACM Conference on E-Commerce: 4th Workshop on Advertising Auctions, Chicago, IL.
- Liu, D., Chen, J.Q. & Whinston, A. B. (2007). Competing Keyword Auctions. Workshop on Information Systems and Economics (WISE), Montreal, Canada.
- Liu, D., Li, X. & Santhanam, R. (2007). What makes Game Players Want to Play More? A Mathematical and Behavioral Understanding of Online Game Design. Human Computer Interface International Conference. Beijing, China.
- Liu, D., Chen, J.Q. & Whinston, A. B. (2007). Competing Keyword Auctions. China Summer Workshop on Information Management, Shanghai, China (**Best Paper Award**).
- Liu, D., Chen, J.Q. & Whinston, A. B. (2007). Competing Keyword Auctions. INFORMS Conference on Information Systems and Technology (CIST), Seattle, Washington.
- Chen, J.Q., Liu, D. & Whinston, A.B. (2006). Resource packaging in keyword auctions. Proceedings of the 27th International Conference on Information Systems (ICIS). Milwaukee, Wisconsin. Page 1999-2013, 2006.
- Liu, D., Chen, J.Q. & Whinston, A.B. (2006). Weighted Unit-Price Auctions. the ACM Conference on E-Commerce: 2nd Workshop on Sponsored Search Auctions. Ann Arbor, Michigan.
- Liu, D., Chen, J.Q. & Whinston, A.B. (2006). Weighted Unit-Price Auctions as Keyword Auctions. Workshop on Information Systems and Economics (WISE), Milwaukee, Wisconsin.
- Chen, J.Q., Liu, D. & Whinston, A.B. (2005). Designing Share Structure in Auctions of Divisible Goods. the ACM Conference on E-Commerce: Workshop on Sponsored Search Auctions. Vancouver, BC, Canada.
- Liu, D., Chen, J.Q. & Whinston, A.B. (2004). Designing Online Auctions with Past Performance Information. Workshop on Information Systems and Economics (WISE), Washington, D.C.
- Chen, G.Q., Liu, D. & Li, J.X. (2001). Influence and Conditional Influence – New Interestingness Measures in Association Rule Mining. IEEE International Conference on Fuzzy Systems. Melbourne, Vic., Australia.
- Liu, D. & Chen, G.Q. (2000). Association Rule Mining Based on a Simple Rule Set. IFIP World Computer Congress. Beijing, China.

SELECTED INVITED TALKS

Optimal Allocation for Display Advertising: *University of Texas at Austin (2011), Baidu Inc. (2011)*

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)*

Competitive Playing in Interactive Digital Entertainment and Its Implications: *University of New Mexico (2010).*

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 EXPERIENCE

University of Kentucky

2004-Present

- DIS790: (Ph.D.) Economics of Electronic Commerce (2011)
- ACC 324: Accounting Information Systems (2010 - 2011)
- DIS 320: Information Systems in the Modern Enterprise (Spring 2009)
- DIS 390: Database Management (Fall 2008 - present)
- DIS 450: Analytics Technologies (2005–present)
- DIS 350: Analytics Models and Methods (2004–2009)
- DIS 300: Quantitative Analysis in Operations Management (2006–2007)
- DIS 395: Independent Studies on Decision Science and Information Systems (2005–2009)

- MIS 304: Business Programming using VB.net (2004)

SERVICE ACTIVITIES

PROFESSIONAL SERVICES

Journals

- Special Issue Associate Editor, *Decision Support Systems*, 2012.
- Associate Editor, *Information Systems Research*, starting from January 2012.
- Associate Editor, *Journal of Business Computing and Electronic Commerce*, 2010-present.
- Guest Associate Editor, *MIS Quarterly*, 2011
- Ad hoc reviewer for *Information Systems Research*, *MIS Quarterly*, *Management Science*, *Journal of Marketing*, *Decision Support Systems*, *Administrative Science Quarterly*, *Journal of Management Information Systems*, *Organization Science*, *Journal of Electronic Commerce Research*, *Journal of Organizational Computing and Electronic Commerce*, *Information System Frontiers*, *Journal of Economics and Management Strategy*

Conferences

- Associate Editor, *ICIS* (2009, 2011)
- Session Chair, *INFORMS Annual Conference*, 2006, 2008, and 2009
- Program Committee, *CIST (2008, 2010, 2011)*, *International Conference on E-Commerce (2009)*, *China Summer Workshop on Information Management (2007, 2008, 2010, 2011)*
- Ad hoc reviewer for various conferences including *ICIS*, *HICSS*, *WeB*, *ACM E-Commerce*, *AMCIS*, *CIST*, and *CSWIM*.

INTERNAL SERVICES

- Microsoft Office Specialist Ad Hoc Committee, 2012.
- Learning Outcomes Committee, 2011-present
- Gatton Faculty Council, 2011-present
- DSIS Undergraduate Curriculum Revision Committee, 2007–2008
- Undergraduate Study Committee, 2006–2007
- Library Committee, 2004–2006
- Gatton College Task Force for the CIO Practicum, 2009
- Faculty Focus Group for University of Kentucky Information Technology, 2009

PROFESSIONAL MEMBERSHIPS

- Association of Information Systems (AIS)
- Institute for Operations Research and the Management Sciences (INFORMS)
- American Economic Association (AEA)

AWARDS AND RECOGNITIONS

- Co-investigator, Chinese National Science Foundation Grant on “Theory and Applications of Keyword Auctions”, 2011-2014 (**\$78,200**). No. 71171052
- Gatton College Entrepreneurship Research Grant, University of Kentucky, 2011
- Gatton College Summer Research Grant, University of Kentucky, 2005-2010
- Graduate Research Fellowship, University of Texas at Austin, 2001–2004
- Honored Graduate, Tsinghua University (top 1%), 2000
- Academy of Science Fellowship, Tsinghua University, 1999
- Outstanding Undergraduate Student Scholarship, Tsinghua University, 1998
- Outstanding Undergraduate Student Scholarship, Tsinghua University, 1997
- HSBC Scholarship, Tsinghua University, 1996
- Jiang Nan-Xiang Scholarship, Tsinghua University, 1995
- Outstanding Freshman Fellowship (1st class), Tsinghua University, 1994.

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