

## **Weiguo (Patrick) Fan, Ph.D.**

### **Henry B. Tippie Excellence Chair Professor**

Department of Business Analytics  
Tippie College of Business  
University of Iowa  
108 John Pappajohn Business Building, S262  
Iowa City, Iowa, 52242  
Email: [weiguo-fan@uiowa.edu](mailto:weiguo-fan@uiowa.edu)

[ResearchGate](#): **RG Score: 37.88 (95% out of 11+million)**  
[Google Scholar](#): **Citations: 12645, H-Index: 54, I10-Index: 149** (As of 12/10/2021)  
**Web of Science: 7 ESI Highly Cited Papers**

---

### **EDUCATION**

- |  |      |
|--|------|
| <b>Doctor of Philosophy</b> (Business Administration)<br>Ross School of Business<br>University of Michigan, Ann Arbor, USA | 2002 |
| <b>Master of Science</b> (Computer Science)<br>School of Computing<br>National University of Singapore, Singapore          | 1998 |
| <b>Bachelor of Engineering (Hons.)</b> (Information Science and Engineering)<br>Xi'an Jiaotong University, P. R. China     | 1995 |

### **WORK EXPERIENCE**

- University of Iowa, Iowa City, Iowa, USA (08/14/2018 – now)
  - **Henry B. Tippie Excellence Chair Professor in Business Analytics**
  - **Faculty Director, Tippie Analytics Cooperative** (Since Sept., 2020)
- Virginia Tech, Blacksburg, Virginia, USA
  - **R.B. Pamplin Professor, Eminent Scholar** (04/26/2016- 08/09/2018)
  - Fellow, Center for Business Intelligence and Analytics (CBIA), Pamplin College of Business, Virginia Tech, (07/2016-05/2018)
  - Director, Center for Business Intelligence and Analytics (CBIA), Pamplin College of Business, Virginia Tech, (2013-2015)
  - Associate Director, Digital Library Research Lab, Virginia Tech (2006-2018)
  - **Professor of Accounting and Information Systems, Computer Science** (2011-2016)
  - **Associate Professor** of Accounting and Information Systems, Computer Science (2006-2011)
  - **Assistant Professor** of Accounting and Information Systems, Computer Science (2002-2006)

### **Courses taught at University of Iowa:**

BAIS 6050: Data Management and Visual Analytics (MAcc, MFin, MSBA or MBA/PMBA)

BAIS 6105: Social Analytics (MSBA, MBA/PMBA)

### **Courses taught at Virginia Tech:**


ACIS 1504 : *Introduction to Business Intelligence and Analytics*  
ACIS 2515 : *Principles of Accounting*  
ACIS 3504 : *Accounting Systems and Controls*  
ACIS 3515 : *Intermediate Accounting*  
ACIS 4534 : *Accounting Information Systems Architecture*  
ACIS 4504 : *Accounting Information Systems Development*  
ACIS/BIT 4554 : *Telecommunications and Networks in Business*  
ACIS/BIT 4564 : *Object-Oriented Systems Development in Java*  
ACIS4024/5014 : *Information System Auditing and Control*  
ACIS4684/5584 : *Information System Security and Assurance*  
ACIS5704 (MBA) : *Managing Information Systems for Executive Decision Making*


- University of Michigan Business School, Ann Arbor, Michigan, USA
  - **Lecturer**, Computer and Information Systems (2001)
- National University of Singapore, Singapore
  - **Instructor**, Information Systems and Computer Science (1997)


### **REFEREED JOURNAL PUBLICATIONS**


1. Y. Chen, Z. Zhang, Y. Wang, Y. Zhang, R. Feng, T. Zhang, **W. Fan**, “AE-Net: Fine-grained sketch-based image retrieval via attention-enhanced network”, *Pattern Recognition*, 122, 2022. (5-year impact factor **4.991**)
2. S. Miao, S. Du, R. Feng, Y. Zhang, H. Li, T. Liu, L. Zheng, **W. Fan**, “Balanced single-shot object detection using cross-context attention-guided network”, *Pattern Recognition*, 122, 2022. (5-year impact factor **4.991**)
3. X Wang, M Zhang, **W. Fan**, K Zhao, “Understanding the spread of COVID - 19 misinformation on social media: The effects of topics and a political leader's nudge”, *Journal of the Association for Information Science and Technology*, 2021. (5-year impact factor **3.17**)
4. H. Wang, R. Du, W. Shen, L. Qiu, **W. Fan**, “Product reviews: a benefit, a burden, or a trifle? How seller reputation affects the role of product reviews”, *MIS Quarterly*, 2021. (5-year impact factor **9.61**) (UTD24, FT50)


5. X. Han, L. Wang, **W. Fan**, “Is Hidden Safe? Location Protection against Machine-Learning Prediction Attacks in Social Networks”, *MIS Quarterly*, 2021. (5-year impact factor **9.61**) (**UTD24, FT50**)
6. Q. Liu, Z. Yang, X. Cai, Q. Du, **W. Fan**, “The more, the better? The effect of feedback and user's past successes on idea implementation in open innovation communities”, *Journal of the Association for Information Science and Technology*, 2021. (5-year impact factor **3.17**)
7. Q. Du, J. Li, Y. Fu, G. A. Wang **W. Fan**, “Predicting crowdfunding project success based on backers’ language preferences”, *Journal of the Association for Information Science and Technology*. In press, 2021. (5-year impact factor **3.17**)
8. J. She, T. Zhang, Q. Chen, J. Zhang, **W. Fan**, H. Wang, Q. Chang, “Which social media posts generate the most buzz? Evidence from WeChat”, *Internet Research*, 2021. (5-year impact factor **5.36**)
9. C Shi, P Hu, **W Fan**, L Qiu, “How learning effects influence knowledge contribution in online Q&A community? A social cognitive perspective”, *Decision Support Systems*. Accepted/In Press February 2021. (5-year impact factor **4.574**)
10. N. Wang, S. Zhao, S. Cui, **W. Fan**, “A hybrid ensemble learning method for the identification of gang-related arson cases”, *Knowledge-Based Systems*. 2021. (5-year impact factor **6.075**)
11. X. Yang, G. Yang, J. Wu, Y. Dang, **W. Fan**, “Modeling Relationships between Retail Prices and Consumer Reviews: A Machine Discovery Approach and Comprehensive Evaluations”, *Decision Support Systems*, 2021. (5-year impact factor **4.574**)
12. Y. Zheng, Y. Zhang, R. Feng, T. Zhang, **W. Fan**, “Stacked Multimodal Attention Network for Context-Aware Video Captioning”, *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2021. (5-year impact factor **4.41**)
13. L. Huang, D. Zheng, W. Fan, “Do social networking sites promote life satisfaction? the explanation from an online and offline social capital transformation”, *Information Technology & People*, 2021. (5-year impact factor **3.165**)
14. S. Shin, Q. Du, Y. Ma, **W. Fan**, Z. Xiang, “Moderating effects of rating on text and helpfulness in online hotel reviews: an analytical approach”, *Journal of Hospitality Marketing & Management*, 30(2), 159-177, 2021. (impact factor **4.489**)
15. Q. An, Y. Ma, Q. Du, Z. Xiang, **W. Fan**, “Role of user-generated photos in online hotel reviews: An analytical approach”, *Journal of Hospitality and Tourism Management*, 45, 633—640, 2020. (impact factor **3.415**)
16. X. Xiang, J. Cao, **W. Fan**, “Scalable Attestation Protocol Resilient to Physical Attacks for IoT Environments”, *IEEE Systems Journal*, 2020. (5-year impact factor **4.261**)
17. Y. Zhang, X. Li, **W. Fan**, “User adoption of physician's replies in an online health community: An empirical study”, *Journal of the Association for Information Science and Technology*, 71(10), 1179—1191, 2020. (5-year impact factor **3.17**)

18. X. Liu, G. A. Wang, **W. Fan**, Z. Zhang, “Finding useful solutions in online knowledge communities: A theory-driven design and multi-level analysis”, forthcoming, *Information Systems Research*, 2020. (5-year impact factor **6.07**) **(UTD24, FT50)**
19. H. K. Cheng, W. Fan, P. Guo, H. Huang, L. Qiu, “Can “Gold Medal” Online Sellers Earn Gold? The Impact of Reputation Badges on Sales”, *Journal of Management Information Systems*, 57(4), 2020. (5-year impact factor **4.26**, **FT50**)
20. M. Zhang, B. Fan, N. Zhang, W. Wang, W. Fan, “Mining Product Innovation Ideas from Online Reviews”, forthcoming, *Information Processing and Management*, 2020. (5-year impact factor **4.278**)
21. W. Li, Y. Zheng, Y. Zhang, R. Feng, T. Zhang, W. Fan, “Cross-modal Retrieval with Dual Multi-angle Self-attention”, *Journal of the Association for Information Science and Technology*, 2020. DOI: 10.1002/asi.24373. (5-year impact factor **3.17**)
22. Q. Liu, Q. Du, Y. Hong, **W. Fan**, “User Idea Implementation in Open Innovation Communities: Evidence from a New Product Development Crowdsourcing Community”, *Information Systems Journal*, 2020. DOI: [10.1111/isj.12286](https://doi.org/10.1111/isj.12286). (5-year impact factor **6.05**)
23. Y. Tian, L. Zhou, Y. Zhang, T. Zhang, **W. Fan**, “Deep Cross-modal Face Naming for People News Retrieval”, forthcoming, *IEEE Transactions on Knowledge and Data Engineering*, 2020. (5-year impact factor **4.56**)
24.  **Highly Cited Paper** B. Fan, **W. Fan**, C. Smith, H. Gardner, “Adverse drug event detection and extraction from open data: A deep learning approach”, *Information Processing and Management*, 57(1), 2020. (5-year impact factor **4.278**) **ESI Highly Cited Paper**
25. Y. Wang, F. Huang, Y. Zhang, R. Feng, T. Zhang, W. Fan, “Deep cascaded cross-modal correlation learning for fine-grained sketch-based image retrieval”, *Pattern Recognition*, 100, 107148, 2020. (5-year impact factor **4.991**)
26. J. Yang, Y. Zhang, R. Feng, T. Zhang, **W. Fan**, “Deep Reinforcement Hashing with Redundancy Elimination for Effective Image Retrieval”, *Pattern Recognition*, 100, 2020. (5-year impact factor **4.991**). DOI: 10.1016/j.patcog.2019.107116
27. L. Zhou, Y. Zhang, Y. Jiang, T. Zhang, **W. Fan**, “Re-Caption: Saliency-Enhanced Image Captioning through Two-Phase Learning”, *IEEE Transactions on Image Processing*, 29, 694-709, 2019. (5-year impact factor **7.25**)
28. Y. Zhang, X. Li, **W. Fan**, “User adoption of physicians’ replies in an online health community: An empirical study”, forthcoming, *Journal of the Association for Information Science and Technology*. DOI: 10.1002/asi.24319. 2019. (5-year impact factor **2.76**)
29. H. Hong, Q. Ye, Q. Du, A. G. Wang, & **W. Fan**, “Crowd characteristics and crowd wisdom: Evidence from an online investment community”, forthcoming, *Journal of*



- the Association for Information Science and Technology*, 2019. (5-year impact factor **2.76**)
30. C. Wang, D. Han, **W. Fan**, Q. Liu, “Customer churn prediction with feature embedded convolutional neural network: An empirical study in the Internet funds industry”, *International Journal of Computational Intelligence and Applications*, 18(1), 2019. DOI: doi.org/10.1142.
  31. M. Zhou, Q. Liu, X. Cai, **W. Fan**, “Examining continuance use on social network and micro-blogging sites: Different roles of self-image and peer influence”, *International Journal of Information Management*, 47, 215-232, 2019. (5-year impact factor **4.81**)
  32. Q. Liu, Z. Shao, J. Tang, W. Fan, “Examining the influential factors for continued social media use: A comparison of social networking and microblogging”, *Industrial Management & Data Systems*, forthcoming, 2019. (5-year impact factor **3.42**)
  33. J. Guo, W. Zhang, **W. Fan**, W. Li, “Combining geographical and social influence with deep learning for personalized point-of-interest recommendation”, *Journal of Management Information Systems*, 35(4), 1121-1153, 2018. (5-year impact factor **4.26**, **FT50**)
  34. S. Zhou, Z. Qiao, Q. Du, A. Wang, **W. Fan**, X. Yan, “Measuring customer agility using big data text analytics”, *Journal of Management Information Systems*, 35(2), 2018. (5-year impact factor **4.26**, **FT50**)
  35. R. Gruss, A. Abrahams, A. Wang, **W. Fan**, "By the numbers: The magic of numerical intelligence in text analytic systems", *Decision Support Systems*, forthcoming, 2018. (5-year impact factor **4.574**)
  36. Q. Liu, Z. Shao, **W. Fan**, “The impact of users’ sense of belonging on social media habit formation: Empirical evidence from social networking and microblogging websites in China”, *International Journal of Information Management*, 43, 209-223, 2018. (5-year impact factor **4.81**)
  37. D. Fu, Y. Hong, K. Wang, **W. Fan**, “Effects of membership tier on user content generation behaviors: evidence from online reviews”, *Electronic Commerce Research*, 18(3), 457-483, 2018.
  38.  **Highly Cited Paper** Y. Ma, Z. Xiang, Q. Du, **W Fan**, “Effects of user-provided photos on hotel review helpfulness: An analytical approach with deep leaning”, *International Journal of Hospitality Management*, 71, 120-131, 2018. (5-year impact factor **4.664**) **ESI Highly Cited Paper**
  39. F. Huang, C. Jin, Y. Zhang, K. Weng, T. Zhang, **W. Fan**, “Sketch-based Image Retrieval with Deep Visual Semantic Descriptor”, *Pattern Recognition*, 76, 537-548, 2018, doi: 10.1016/j.patcog.2017.11.032. (5-year impact factor **4.991**)
  40. K. Inger, M. Meckfessel, M. Zhou, **W. Fan**, “An examination of the impact of tax avoidance on the readability of tax footnotes”, *Journal of the American Taxation Association*, 40(1), 1-29, 2018. **Lead Article**.

41. H. Wang, R. Du, J. Li, **W Fan**, “Subdivided or aggregated online review systems: Which is better for online takeaway vendors?” forthcoming, *Journal of Electronic Commerce Research*, 2018. (5-year impact factor 2.45)
42. M. Li, **W. Fan**, X. Luo, “Exploring the development of library makerspaces in China”, forthcoming, *Information Discovery and Delivery*, 2018. (5-year impact factor 0.51)
43. D. Han, W. Wang, S. Luo, **W. Fan**, S. Wang, “The uncertainty mapping of ontologies based on three-dimensional combination weight vector space model”, forthcoming, *Information Discovery and Delivery*, 2018. (5-year impact factor 0.51)
44. Z. Xiang, Q. Du, Y. Ma, **W Fan**, “Assessing reliability of social media data: Lessons from mining TripAdvisor hotel reviews”, *Information Technology & Tourism*, 18(1-4), 43-59, 2018.
45.  Highly Cited Paper Q. Liu, D. Han, **W. Fan**, “A new image classification method using CNN transfer learning and web data augmentation”, *Expert Systems with Applications*, 95, 43-56, 2018. (5-year impact factor 3.71) ESI Highly Cited Paper
46. F. Wang, L. Shi, S. Huang, **W. Fan**, “The application of series multi-pooling convolutional neural networks for medical image segmentation”, *International Journal of Distributed Sensor Networks*, forthcoming, 2018. (5-year impact factor 1.315). DOI: <https://doi.org/10.1177/1550147717748899>
47. J. Han, Q. Chen, J. Liu, X. Luo, **W. Fan**, “The persuasion of borrower’ voluntary information in peer to peer lending: An empirical study based on elaboration likelihood model”, *Computers in Human Behavior*, 78, 200-214, 2018. (5-year impact factor 4.417)
48. A. Awaysheh, J. Wilcke, F. Elvinger, L. Rees, **W. Fan**, K. Zimmerman, “Identifying free-text features to improve automated classification of structured histopathology reports for feline small intestinal disease”, *Journal of Veterinary Diagnostic Investigation*, 30(2), 2018. (5-year impact factor 1.39)
49. M. Zhou, B. Lu, **W. Fan**, G.A. Wang, “Project description and crowdfunding success: an exploratory study”, *Information System Frontiers*, 20(2), 259-274, 2018. (5-year impact factor 2.56)
50. A. Awaysheh, J. Wilcke, F. Elvinger, L. Rees, **W. Fan**, K. Zimmerman, “A review of medical terminology standards and structured reporting”, *Journal of Veterinary Diagnostic Investigation*, 30(1), 17-25, 2018. <https://doi.org/10.1177%2F1040638717738276> (5-year impact factor 1.39)
51. C. Chen, R. Du, J. Li, **W. Fan**, “The impacts of knowledge sharing-based value co-creation on user continuance in online communities”, *Information Discovery and Delivery*, 45(4), 227-239, 2017. (5-year impact factor 0.51)
52. D. Fu, Y. Hong, K. Wang, **W. Fan**, “Effects of membership tier on user content generation behaviors: evidence from online reviews”, *Journal of Electronic Commerce Research*, first online July 18th, 2017. (5-year impact factor 2.45) <https://doi.org/10.1007/s10660-017-9266-7>

53. H. Hong, D. Xu, G. A. Wang, **W. Fan**, “Understanding the determinants of online review helpfulness: A meta-analytic investigation”, 102, 1-11, *Decision Support Systems*, 2017. (5-year impact factor 4.574). **Lead Article**.
54. X. Yan, Y. Li, **W. Fan**, “Identifying domain relevant user generated content through noise reduction: a test in a Chinese stock discussion forum”, *Information Discovery and Delivery*, 45(4), 181-193, 2017. (5-year impact factor 0.51)
55.  **Highly Cited Paper** Z. Xiang, Q. Du, Y. Ma, **W. Fan**, “A comparative analysis of major online review platforms: Implications for social media analytics in hospitality and tourism”, *Tourism Management*, 58, 51-65, 2017 (5-year impact factor 7.08). **ESI Highly Cited Paper**
56. Y. Ma, L. Xia, W. Shen, M. Zhou, **W. Fan**, “A surrogate-based generic classifier for Chinese TV series reviews”, *Information Discovery and Delivery*, 45(2), 66-74, arXiv preprint arXiv:1611.02378, 2017. (5-year impact factor 0.51)
57. H. Hong, D. Xu, D. Wang, G. A. Wang, **W. Fan**, “An empirical study on the impact of online word-of-mouth sources on retail sales”, *Information Discovery and Delivery*, 45(1), 30-35, 2017. (5-year impact factor 0.51)
58. Y. Wang, R. Du, K. S. Koong, and **W. Fan**, “Effects of R&D policy choice on accounting performance and market value”, *R&D Management*, 47(4), 545-556, 2017. (5-year impact factor 1.59)
59. A. Leng, G. Xing, **W. Fan**, “Credit risk transfer in SME loan guarantee networks”, *Journal of Systems Science and Complexity*, 30(5), 1084-1096, 2017. (5-year impact factor 0.59)
60. A. Awaysheh, J. Wilcke, F. Elvinger, L. Rees, **W. Fan**, K. Zimmerman, “Evaluation of supervised machine-learning algorithms to distinguish between inflammatory bowel disease and alimentary lymphoma in cats”, *Journal of Veterinary Diagnostic Investigation*, 28(6), 679-687, 2016. (5-year impact factor 1.39)
61. B. Lu, Q. Zeng, **W. Fan**, “Examining macro-sources of institution-based trust in social commerce marketplaces: An empirical study”, *Electronic Commerce Research and Applications*, 20, Nov.-Dec. issue, 116-131, 2016.
62. L. Liu, R. Du, **W. Fan**, “How members’ commitment to an online knowledge community influences their usage behavior”, *Social Behavior and Personality*, 44(4), 693-704, 2016. (5-year impact factor 0.81)
63. J. Wang, M. Zhou, L. Lei, and **W. Fan**, “Corporate Social Responsibility Reporting, Pyramidal Structure and Political Interference: Evidence from China”, *Journal of Applied Business Research*, 32(2), 703-716, 2016.
64. X. Hao, D. Zheng, Q. Zeng, and **W. Fan**, “How to strengthen the social media interactivity of e-government: Evidence from China”, *Online Information Review*, 40(1), 79-96, 2016. (5-year impact factor 1.22)

65.  Highly Cited Paper B. Lu, **W. Fan**, M. Zhou, "Social presence, trust, and social commerce purchase intention: An empirical research", *Computers in Human Behavior*, 56:225-237, 2016. (5-year impact factor **4.417**) **ESI Highly Cited Paper**
66. B. Lu, S. Zhang, and **W. Fan**, "Social representations of social media use in government: An analysis of Chinese government microblogging from citizens' perspective", *Social Science Computer Review*, forthcoming, 2016. (5-year impact factor **1.89**)
67. W. Xu, P. Ou, **W. Fan**, "Antecedents of ERP assimilation and its impact on ERP value: A TOE-based model and empirical test", *Information Systems Frontiers*, forthcoming, 2016. (5-year impact factor **2.56**)
68. T. Yang, **W. Fan**, "Information management strategies and supply chain performance under demand disruptions", *International Journal of Production Research*, 54(1), 2016. (5-year impact factor **1.76**)
69. **W. Fan** and X. Yan, "Novel applications of social media analytics", *Information & Management*, 52(7), 761-763, 2015. (5-year impact factor **4.792**)
70. G. A. Wang, X. Liu, J. Wang, M. Zhang, **W. Fan**, "Examining micro-level knowledge sharing discussions in online communities", *Information Systems Frontiers*, 17:1227-1238, 2015. (5-year impact factor **2.56**)
71. M. Zhou, L. Lei, J. Wang, A. G. A. Wang, **W. Fan**, "Social media adoption and corporate disclosure", *Journal of Information Systems*, 29(2), 23-50, 2015.
72. Y. Chen, X. Yan, **W. Fan**, "Examining the effects of decomposed perceived risk on consumer's online shopping behavior: A field study in China", *Engineering Economics*, 26(3), 315-326, 2015. (5-year impact factor **1.47**)
73. Y. Chen, X. Yan, **W. Fan**, M. D. Gordon, "The joint moderating role of trust propensity and gender on consumers' online shopping behavior", *Computers in Human Behavior*, 43, 272-283, 2015. (5-year impact factor **4.417**)
74. A. S. Abrahams, **W. Fan**, J. Jiao, G. A. Wang, Z. Zhang, "An integrated text analytic framework for product defect discovery", *Production and Operations Management*, 24(6), 975-990, 2015. (5-year impact factor **2.92**) (**UTD24, FT50**)
75. Y. Wang, **W. Fan**, "R&D reporting methods and firm value: Evidence from China", *Chinese Management Studies*, 8(3), 375-396, 2014. (5-year impact factor **0.61**)
76. G. A. Wang, H. J. Wang, J. Li, A. Abrahams, and **W. Fan**, "An analytical framework for understanding knowledge sharing processes in online Q&A communities", *ACM Transactions on Management Information Systems*, 5(4), article 18, 2014.
77. B. Lee, **W. Fan**, A. Squicciarini, S. Ge, Y. Huang, "The relativity of privacy preservation based on social tagging", *Information Sciences*, 288, 87-107, Dec. 20<sup>th</sup>, 2014. (5-year impact factor **4.378**)



78. L. Zhai, X. Li, X. Yan, **W. Fan**, "Evolutionary analysis of collaboration networks in the field of information systems", *Scientometrics*, 101(3), 1657-1677, 2014. (5-year impact factor **2.389**)
79.  Highly Cited Paper H. Lin, **W. Fan**, P. Chau, "Determinants of users' continuance of social networking sites: A self-regulation perspective", *Information and Management*, 51(5), 595-603, 2014. (5-year impact factor **4.792**) **ESI Highly Cited Paper**
80.  Highly Cited Paper **W. Fan**, M. D. Gordon, "The power of social media analytics", *Communications of the ACM*, 57(6), 74-81, 2014. (5-year impact factor **5.29**) **ESI Highly Cited Paper**
81. A. S. Abrahams, J. Jiao, **W. Fan**, G. A. Wang, Z. Zhang, "What is buzzing in the blizzard of buzz: automotive component isolation in social media postings", *Decision Support Systems*, 55(4), 871-882, 2013. (5-year impact factor **4.574**)
82. G. A. Wang, J. Jiao, A. S. Abrahams, **W. Fan**, Z. Zhang, "ExpertRank: A topic-aware expert finding algorithm for online knowledge communities", *Decision Support Systems*, 54(3), 1442-1451, 2013. (5-year impact factor **4.574**)
83. H. Lin and **W. Fan**, L. Wallace, "The effects of social and technical factors on user satisfaction, sense of belonging and knowledge community usage", *International Journal of e-Collaboration*, 9(3), 13-30, 2013.
84. X. Yan, L. Zhai, **W. Fan**, "C-index: A weighted network node centrality measure for collaboration competence", *Journal of Informetrics*, 7(1), 223-239, 2013. (5-year impact factor **3.99**)
85. X. Liu, G. A. Wang, A. Johri, M., Zhou, **W. Fan**, "Harnessing global expertise: A comparative study of expertise profiling methods for online communities", *Information Systems Frontiers*, September, 2012. DOI 10.1007/s10796-012-9385-6. (5-year impact factor **2.56**)
86. A. S. Abrahams, J. Jiao, G. A. Wang, **W. Fan**, "Vehicle defect discovery from social media", *Decision Support Systems*, 54(1): 87-97, 2012. (5-year impact factor **4.574**)
87. H. Lin and **W. Fan**, "Examining commitment in electronic knowledge repository usage", *Journal of Computer Information Systems*, 52(4): 88-97, 2012. (5-year impact factor **0.77**)
88. H. Lin and **W. Fan**, "Leveraging organizational knowledge through electronic knowledge repositories in public accounting firms: An empirical investigation", *Behavioral Research in Accounting*, 23(2): 147-167, 2011.
89. J. Yan, N. Liu, S. Yan, Q. Yang, **W. Fan**, W. Wei, Z. Chen, "Trace oriented feature analysis for large scale text data dimension reduction", *IEEE Transactions on Knowledge and Data Engineering*, 23(7): 1103-1117, 2011. (5-year impact factor **3.69**)

90. C. D. Ferreira, J. A. Santos, R. S. Torres; M. A. Gonçalves, R. C. Rezende, **W. Fan**, "Relevance feedback based on genetic programming for image retrieval", *Pattern Recognition Letters*, 32(1): 27-37, 2011. (5-year impact factor 1.53)
91. D. R. Gnyawali, **W. Fan**, J. Penner, "Competitive actions and dynamics in the digital age: An empirical investigation of social networking firms", *Information Systems Research*, 21(3), 594-613, 2010. (5-year impact factor 6.069) (UTD24, FT50)
92. H. Wu, M. D. Gordon, **W. Fan**, "Collective taxonomizing: A collaborative approach to organizing document repositories", *Decision Support Systems*, 50(1): 292-303, 2010. (5-year impact factor 4.574)
93. M. J. Lawson, J. Jiao, **W. Fan**, and L. Zhang, "A Pattern Analysis of Gene Conversion Literature", *Comparative and Functional Genomics*, vol. 2009, Article ID 761512, 11 pages, 2009. doi:10.1155/2009/761512. (5-year impact factor 1.17)
94. **W. Fan**, P. Pathak, M. Zhou, "Genetic-based approaches in ranking function discovery and optimization in information retrieval - A framework", 47(4), 398-407, *Decision Support Systems*, 2009. (5-year impact factor 4.574)
95. L. C. Schaupp, F. Belanger, **W. Fan**, "Examining the success of websites beyond e-Commerce: An extension of the IS Success Model", *Journal of Computer Information Systems*, 49(4), 42-52, 2009. (5-year impact factor 0.77)
96. X. Li, J. Yan, **W. Fan**, N. Liu, S. Yan, Z. Chen, "An online blog reading system by topic clustering and personalized ranking", *ACM Transactions on Internet Technology*, 9(3), 1-26, 2009. (5-year impact factor 1.29)
97. H. Lin, **W. Fan**, Z. Zhang, "A qualitative study of Web-based knowledge communities: Examining success factors", *International Journal of e-Collaboration*, 5(3), 39-57, 2009.
98. R. S. Torres, A. X. Falcao, M. A. Goncalves, J. P. Papa, B. Zhang, **W. Fan**, and E. A. Fox, "A genetic programming framework for content-based image retrieval", 42(2), 283-292, *Pattern Recognition*, 2009. (5-year impact factor 3.22)
99. R. Shen, N. S. Vemuri, **W. Fan**, E. A. Fox, "Integration of complex archeology digital libraries: An ETANA-DL experience", *Information Systems*, 33(7-8), 699-723, 2008. (5-year impact factor 1.84)
100. D. Roussinov, **W. Fan**, J. Robles, "Beyond keywords: Automated question answering on the Web", *Communications of the ACM*, 51(9), 60-65, 2008. (5-year impact factor 2.54)
101. E. A. Fox, C. Andrews, **W. Fan**, J. Jiao, A. Kassahun, S.-C. Lu, Y. Ma, C. North, N. Ramakrishnan, A. Scarpa, B. H. Friedman, S. D. Sheetz, D. Shoemaker, V. Srinivasan, S. Yang, L. Boutwell, "A digital library for recovery, research, and learning from April 16, 2007 at Virginia Tech", *Journal of Traumatology*, 14(1), 64-84, 2008.
102. Z. Zhang, **W. Fan**, "Web server load balancing: A queueing analysis", *European Journal of Operational Research*, 186(2), 681-693, 2008. (5-year impact factor 2.28)

103. Y. Yuan, **W. Fan**, D. Pu, "Spline function smooth support vector machine for classification", *Journal of Industrial and Management Optimization*, 3(3), 529-542, 2007. (5-year impact factor 0.76)
104. **W. Fan**, P. Pathak, L. Wallace, "Nonlinear ranking function representations in genetic programming-based ranking discovery for personalized Web search", *Decision Support Systems*, 42(3), 1338-1349, 2006. (5-year impact factor 4.574)
105. **W. Fan**, M. D. Gordon, P. Pathak, "On linear mixture of expert approaches to information retrieval", *Decision Support Systems*, 42(2), 975-987, 2006. (5-year impact factor 4.574)
106. **W. Fan**, M. D. Gordon, P. Pathak, "An integrated two-stage model for intelligent information routing", *Decision Support Systems*, 42(1), 362-374, 2006. (5-year impact factor 4.574)
107. **W. Fan**, L. Wallace, S. Rich and Z. Zhang "Tapping the power of text mining", *Communications of the ACM*, 49(9), 76-82, 2006. Also reprinted in *IT management select* 13(1), 42-49, 2007. *IT management select publishes selected prime articles from international press on IT management.* (5-year impact factor 5.29)
108. F. Belanger, **W. Fan**, C. Schaupp, J. Everhart, D. Poteet, A. Krishen, K. Nakamoto, "Website success metrics: addressing the duality of goals", *Communications of the ACM*, 49(12), 114-116, 2006. (5-year impact factor 2.54)
109. M. D. Gordon, **W. Fan**, P. Pathak, "Adaptive Web search: evolving a program that finds information", *IEEE Intelligent Systems*, 21(5), 72-77, 2006. (5-year impact factor 2.54)
110. E. A. Fox, F. D. Neves, X. Yu, R. Shen, S. Kim, **W. Fan**, "Exploring the computing literature with visualization and stepping stones & pathways", *Communications of the ACM*, 49(4), 52-58, 2006. (5-year impact factor 2.54)
111. H. Wu, M. Gordon, K. Demaagd, **W. Fan**, "Mining Web navigations for intelligence", *Decision Support Systems*, 41(3), 574-591, 2006. (5-year impact factor 4.574)
112. J. Yan, B. Zhang, N. Liu, S. Yan, Q. Cheng, **W. Fan**, Q. Yang, W. Xi, Z. Chen, "Effective and efficient dimensionality reduction for large scale and streaming data preprocessing", *IEEE Transactions on Knowledge and Data Engineering*, 18(3), 320-333, 2006. (5-year impact factor 3.69)
113. **W. Fan**, M. D. Gordon and P. Pathak, "Genetic programming-based discovery of ranking functions for effective Web search", *Journal of Management Information Systems (JMIS)*, 21(4), 37-56, 2005. (5-year impact factor 4.26) (FT50)
114. **W. Fan**, M. D. Gordon, P. Pathak, "Effective profiling of consumer information retrieval needs: a unified framework and empirical comparison", *Decision Support Systems*, 40(2), 213-233, 2005. (5-year impact factor 4.574)
115. D. Radev, **W. Fan**, H. Qi, H. Wu, A. Grewal, "Probabilistic question answering on the Web", *Journal of the American Society for Information Science and Technology*, 56(6), 571-583, 2005. (5-year impact factor 2.76)

116. R. Barkhi, E. Rolland, J. Butler, **W. Fan**, "Decision support system induced guidance for model formulation and solution", *Decision Support Systems*, 40(2), 269-281, 2005. (5-year impact factor 4.574)
117. **W. Fan**, M.D. Gordon, P. Pathak, "A generic ranking function discovery framework by genetic programming for information retrieval", *Information Processing and Management*, 40(4), 587-602, 2004. (5-year impact factor 1.43)
118. **W. Fan**, M. D. Gordon, P. Pathak, "Discovery of context-specific ranking functions for effective information retrieval by Genetic Programming", *IEEE Transactions on Knowledge and Data Engineering*, 16(4), 523-527, 2004. (5-year impact factor 3.69)
119. **W. Fan**, E. Fox and P. Pathak, H. Wu, "The effects of fitness functions on genetic programming-based ranking discovery for Web search", *Journal of the American Society for Information Science and Technology*, 55(7), pp. 628-636, 2004. (5-year impact factor 2.76)
120. M. D. Gordon, **W. Fan**, S. Rafaeli, H. Wu, N. Farag, "The architecture of CommKnowledge: combining link structure and user actions to support an online community", *International Journal of Electronic Business*, 1(1), 69-82, 2003.
121. M. D. Gordon, R. Lindsay, **W. Fan**, "Literature-based discovery on the WWW", *ACM Transactions on Internet Technology (TOIT)*, 2(4), 262-275, 2002. (5-year impact factor 1.29)
122. D. R. Radev, K. Libner, **W. Fan**, "Getting answers to natural language questions on the Web", *Journal of the American Society for Information Science and Technology (JASIST)*, 53(5), 359-364, 2002. (5-year impact factor 2.76)
123. **W. Fan**, H. Lu, S. Madnick, D. Cheung, "DIRECT: a system for mining data value conversion rules from disparate sources", *Decision Support Systems*, 34(1), 19-39, 2001. (5-year impact factor 4.574)
124. **W. Fan**, H. Lu, S. Madnick, D. Cheung, "Discovering and reconciling data value conflicts for data integration", *Information Systems*, 26(8), 635-656, 2001. (5-year impact factor 1.84)
125. K. H. Phua, **W. Fan**, Y. Zeng, "Parallel algorithms for large scale nonlinear optimization", *Journal of International Transactions in Operational Research*, 5(1), 67-77, 1998.

## REFEREED BOOK CHAPTERS

126. Z Qiao, G.A. Wang, M. Zhou, **W Fan**, "The impact of customer reviews on product innovation: Empirical evidence in mobile apps, in *Analytics and Data Science*, Springer, 2018.
127. Yu, M. Tungare, **W. Fan**, Y. Yuan, M. Pérez-Quñones, E. A. Fox, W. Cameron, L. Cassel, "Automatic syllabus classification using support vector machines", in *Handbook of Research on Text and Web Mining Technologies*, Idea Group Inc, 2008.

128. X. Yu, M. Tungare, **W. Fan**, M. Pérez-Quñones, E. A. Fox, W. Cameron, L. Cassel, "Automatic genre-specific text classification", in *Encyclopedia of Data Warehousing and Mining (2<sup>nd</sup> edition)*, Idea Group Inc, 2008.
129. B. Zhang, **W. Fan**, M. Goncalves, Y. Chen and E. A. Fox, P. Calado and M. Cristo, "A genetic programming approach for combining structural and citation-based evidence for text classification in web digital libraries", 25 pages, in *Soft Computing for Information Retrieval*, Springer, 2005.
130. **W. Fan**, P. Pathak, "Discovering ranking functions for information retrieval", in *Encyclopedia of Data Warehousing and Mining*, Idea Group Inc., 13 pages, 2005.
131. H. Wu, **W. Fan**, "E-health communities: scalability challenges to information management", in *E-Health Paradigm Shift: Perspectives, Domains and Cases*, John Wiley, 2004.
132. H. Wu, D. R. Radev, **W. Fan**, "Towards answer-focused summarization using search engines", in *New Directions in Question Answering*, edited by Mark Maybury, AAAI Press, pp. 227-236, 2004.

#### **SELECTED REFEREED CONFERENCE PROCEEDINGS**

133. Xu, J., Hou, J., Zhang, Y., Feng, R., Ruan, C., Zhang, T., **Fan, W.** (2020). Data-Efficient Histopathology Image Analysis with Deformation Representation Learning. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM) (pp. 857--864).
134. Hu, Y., Zhang, Y., Zhang, T., Gao, S., **Fan, W.** (2020). Label Generation Network based on Self-selected Historical Information for Multiple Disease Classification on Chest Radiography. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM) (pp. 1015--1019).
135. Xiao, X., Zhang, Y., Feng, R., Zhang, T., Gao, S., **Fan, W.** Video Captioning with Temporal and Region Graph Convolution Network. Proceedings of International Conference on Multimedia and Expo. Accepted/In Press May 9, 2020
136. Z. Zhang, Y. Zhang, R. Feng, T. Zhang, **W. Fan**, "Zero-Shot Sketch-Based Image Retrieval via Graph Convolution Network", in the *Proceedings of the AAAI Conference on Artificial Intelligence 34*, 12943-12950, 2020.
137. K Fang, L Zhou, C Jin, Y Zhang, K Weng, T Zhang, **W. Fan**, "Fully convolutional video captioning with coarse-to-fine and inherited attention", in the *Proceedings of the AAAI Conference on Artificial Intelligence 33*, 8271-8278, 2019.
138. Z. Qiao, G.A. Wang, W. Shen, **W. Fan**, "A Signaling Theory Approach to Exploring Incremental Innovation in the Mobile Application Marketplace", in the *Proceedings of the INFORMS Conference on Information Systems and Technology (CIST)*, Phoenix, AZ, 2018.
139. L. Xia, X. Zhang, B. Fan, **W. Fan**, "Identifying healthcare fraud with open data", in the *Proceedings of the 2018 Americas Conference on Information Systems*, New Orleans, USA, 2018.

140. L. Xia, J. Zhang, Y. Hong, **W. Fan**, “Strategic information disclosure in the sharing economy: Evidence from Airbnb”, in the *Proceedings of the 12th China Summer Workshop on Information Management*, Qingdao, P.R. China, 2018.
141. S. Zhou, X. Zhao, Z. Qiao, **W. Fan**, G.A. Wang, “Do software developers respond to poor market performance by being more agile? A behavioral theory perspective”, in the *Proceedings of the 12th China Summer Workshop on Information Management*, Qingdao, P.R. China, 2018.
142. Z. Song, Q. Du, W. Shen, G.A. Wang, **W. Fan**, “Predicting crowdfunding project success from the backers' perspective”, in the *Proceedings of the 12th China Summer Workshop on Information Management*, Qingdao, P.R. China, 2018.
143. K. Yang, B. Sun, Q. Liu, **W. Fan**, “Understanding the effects of task reward and duration on solvers' participation in crowdsourcing contests”, in the *Proceedings of the 12th China Summer Workshop on Information Management*, Qingdao, P.R. China, 2018.
144. W. Shen, Z. Qiao, G. A. Wang, **W. Fan**, “Leveraging external consumer experience: Exploitation, exploration and mobile app product performance”, in the *Proceedings of the 2017 INFORMS Workshop on Data Science*, Houston, USA, 2017.
145. L. Xia, X. Zhang, B. Fan, **W. Fan**, “Healthcare fraud detection at physician level using open data”, in the *Proceedings of the 2017 INFORMS Workshop on Data Science*, Houston, USA, 2017.
146. X. Han, L. Wang, **W. Fan**, “Utility-based group recommendation considering social influence”, in the *Proceedings of the 2017 INFORMS Workshop on Data Science*, Houston, USA, 2017.
147. X. Long, G. A. Wang, **W. Fan**, “A deep learning based named entity recognition approach for adverse drug events identification and extraction in health social media”, in the *Proceedings of the 2017 International Conference on Smart Health*, HK, China, 2017.
148. Q. Liu, B. Sun, Q. Du, **W. Fan**, “Understanding the Factors that Influence the Implemented Ideas in Collaborative Crowdsourcing Platform”, in the *Proceedings of the 11th China Summer Workshop on Information Management*, NanJing, P.R. China, 2017.
149. Q. Du, Z. Qiao, G. A. Wang, **W. Fan**, “Aggregating Crowd Opinions Using Statistical Learning”, in the *Proceedings of the 11th China Summer Workshop on Information Management*, NanJing, P.R. China, 2017.
150. H. Hong, D. Xu, G. A. Wang, **W. Fan**, “Understanding the determinants of online review helpfulness: A meta-analytic investigation”, in the Proceedings of the 16<sup>th</sup> WuHan International Conference on E-Business, Wuhan, China, 2017. (**Best conference paper award**)
151. Z. Xiang, Q. Du, Y. Ma, W. Fan, “Assessing reliability of social media data: Lessons from mining TripAdvisor hotel reviews”, in the *Proceedings of the ENTER 2017 Conference*, Italy, 2017. (**Best conference paper award**)

152. Z. Song, G.A. Wang, **W. Fan**, “Firm actions towards data breach incidents and firm equity value: an empirical study”, in the *Proceedings of the 50th Hawaii International Conference on System Sciences (HICSS)*, Big Island, HI, 2017.
153. Q. Du, H. Hong, G.A. Wang, P. Wang, **W. Fan**, “CrowdIQ: a new opinion aggregation model”, in the *Proceedings of the 50th Hawaii International Conference on System Sciences (HICSS)*, Big Island, HI, 2017. (Best conference paper nominee)
154. Z. Qiao, X. Zhang, M. Zhou, G.A. Wang, **W. Fan**, “A domain oriented LDA model for mining product defects from online customer reviews”, in the *Proceedings of the 50th Hawaii International Conference on System Sciences (HICSS)*, Big Island, HI, 2017.
155. S. Zhou, Z. Qiao, Q. Du, A. Wang and **W. Fan**, “How do firms develop customer agility and when does customer agility matter: Evidences from game APP development”, in the *Proceedings of the Tenth China Summer Workshop on Information Management*, DaLian, P.R. China, 2016.
156. Q. Du, M. Zhou, Z. Qiao, X. Zhang, A. Wang and **W. Fan**, “A cross-platform comparison of crowdfunding: An exploratory study”, in the *Proceedings of the Tenth China Summer Workshop on Information Management*, DaLian, P.R. China, 2016.
157. H. Hong, Q. Du, A. Wang, **W. Fan**, D. Xu, “Crowd Wisdom: The Impact of Opinion Diversity and Participant Independence on Crowd Performance”, in the *Proceedings of 2016 Americas Conference on Information Systems*, San Diego, CA, 2016.
158. X. Zhang, Z. Qiao, L. Tang, **W. Fan**, E. Fox and A. Wang, “Discover product issues from user complaints: A probabilistic defect model”, in the *Proceedings of 2016 Americas Conference on Information Systems*, San Diego, CA, 2016.
159. Z. Qiao, G.A. Wang, M. Zhou, and **W. Fan**, “Do customer reviews matter in product innovation? An empirical study of the Google play store”, in the *Proceedings of 2015 Business Analytics Congress*, Fort Worth, TX, USA, 2015 (best paper award winner).
160. Q. Du, **W. Fan**, Z. Qiao, G.A. Wang, X. Zhang, M. Zhou, “Money talks: A predictive model on crowdfunding success using project description”, in the *Proceedings of 2015 Americas Conference on Information Systems*, Puerto, Rico, 2015.
161. Q. Du, **W. Fan**, Z. Qiao, G.A. Wang, X. Zhang, M. Zhou, “Do Facebook activities increase sales?”, in the *Proceedings of 2015 Americas Conference on Information Systems*, Puerto, Rico, 2015.
162. X. Zhang, S. Niu, D. Zhang, G.A. Wang, **W. Fan**, “Predicting vehicle recalls with user-generated contents: A text mining approach”, in the *Proceedings of Pacific Asia Conference on Intelligence and Security Informatics*, 41-50, 2015.
163. M. Akbar, C.A. Shaffer, **W. Fan**, E.A Fox, “Recommendation based on deduced social networks in an educational digital library”, in the *Proceedings of the 2014 IEEE/ACM Joint Conference on Digital Libraries (JCDL)*, IEEE, 2014.
164. X. Zhang, M. Zhou, **W. Fan**, G. Wang, “Automatic recognition of adverse events in the news: A data mining approach”, in the *Proceedings of the 24th Workshop on Information Technology and Systems (WITS)*, Auckland, New Zealand, 2014.

165. G. Wang, H. J. Wang, J. Li, and **W. Fan**, "Mining knowledge sharing processes in online discussion forums," in the *Proceedings of the 47th Hawaii International Conference on System Sciences (HICSS)*, *best paper nominee*, Big Island, HI, 2014.
166. J. Li, G. Wang, H. J. Wang, and **W. Fan**, "Finding patterns for effective knowledge sharing in online communities," in the *Proceedings of the 23rd Workshop on Information Technology and Systems (WITS)*, Milan, Italy, 2013.
167. T. A. Godoi, R. S. Torres, A. Carvalho, M. A. Gonçalves, A. A. Ferreira, **W. Fan**, E. A. Fox, "A relevance feedback approach for the author name disambiguation problem", in the *Proceedings of JCDL 2013*, pp. 209-218, 2013.
168. X. Liu, G. Wang, **W. Fan**, "Knowledge diffusion in online knowledge communities: An exploratory study", in the *Proceedings of the Seventh China Summer Workshop on Information Management*, Tianjin, P.R. China, 2013.
169. G. Wang, X. Liu, **W. Fan**, "A knowledge adoption model based framework for finding helpful user-generated contents in online communities", in the *Proceedings of 2011 International Conference on Information Systems*, Shanghai, P.R. China, 2011.
170. M. Akbar, **W. Fan**, L. N. Cassel, L. Delcambre, C. A. Shaffer, E. A. Fox, Y. Chen, "How educators find educational resources online", in the *Proceedings of the ITiCSE Conference*, 2011.
171. M. Akbar, **W. Fan**, C. A. Shaffer, Y. Chen, L. N. Cassel, L. Delcambre, D. Garcia, G. W. Hislop, F. M. Shipman III, R. Furuta, B. S. Carpenter II, H. Hsieh, B. Siegfried, E. A. Fox, "Digital Library 2.0 for Educational Resources", in the *Proceedings of the TPD Conference*, pp. 89-100, 2011.
172. X. Liu, G. Wang, **W. Fan**, "Automatically assessing information usefulness in online knowledge communities: A text classification framework", in the *Proceedings of 5<sup>th</sup> China Summer Workshop on Information Management*, Harbin, P.R. China, 2011.
173. X. Liu, **W. Fan**, G. Wang, J. Jiao, "Evaluating user knowledge in large scale online knowledge communities", 2nd International Conference on Software Engineering and Data Mining, pp. 404-409, Chengdu, P.R. China, 2010.
174. S. Gu, J. Yan, Z. Xiao, N. Liu, D. Shen, **W. Fan**, L. Ji, Z. Chen, Y. Chen, "What are driving users to click ads? User habit, attitude, and commercial intention", in the *Proceedings of the 2010 ADKDD*, Washington, DC, USA, 2010.
175. G. Wang, J. Jiao, **W. Fan**, "Searching for authoritative documents in knowledge-based communities", in the *Proceedings of the International Conference on Information Systems 2009*, Phoenix, AZ, 2009.
176. L. Ji, J. Yan, N. Liu, W. Zhang, **W. Fan**, Z. Chen, "ExSearch: A novel vertical search engine for online barter business", in the *Proceedings of the ACM 18<sup>th</sup> Conference on Information and Knowledge Management (CIKM)*, Hong Kong, 2009.
177. N. Liu, J. Yan, **W. Fan**, Q. Yang, Z. Chen, "Identifying vertical search intention of query through social tagging propagation", in the *Proceedings of 18th International Conference on World Wide Web*, Madrid, Spain, 1209-1210, 2009.



178. J. Jiao, J. Yan, **W. Fan**, H. Zhao, "An expert user ranking algorithm in online communities", in the *Proceedings of the 2009 International Conference on New Trends in Information and Service Science (NISS 2009)*, Beijing, China, 2009.
179. C. D. Ferreira, R. da S. Torres, M. A. Goncalves, **W. Fan**, "Image Retrieval with Relevance Feedback based on Genetic Programming", in the Proceedings of the XXIII Simpósio Brasileiro de Banco de Dados (Brazilian Symposium on Database), Campinas, Brazil, 2008. **Winner of the best paper award.**
180. J. Yan, N. Liu, Q. Yang, **W. Fan**, Z. Chen, "TOFA: Trace oriented feature analysis in text categorization", in the *Proceedings of the 2008 IEEE International Conference on Data Mining*, Pisa, Italy, 2008.
181. D. Chen, J. Yan, G. Wang, Y. Xiong, **W. Fan**, Z. Chen, "TransRank: A novel algorithm for transfer of rank learning", in the *Proceedings of the ICDM Workshop on Domain-Driven Data Mining*, pp. 106-115, Pisa, Italy, 2008.
182. N. Liu, J. Yan, S. Yan, **W. Fan**, Z. Chen, "Web query prediction by unifying model", in the *Proceedings of the ICDM Workshop on Spatial and Spatial-Temporal Data Mining*, pp. 436-441, Pisa, Italy, 2008.
183. S. Ai, R. Du, and **W. Fan**, "Discovering and sharing experiential knowledge through active mining and friendly delivery: A design of EKDSS", in the *Proceedings of the 38<sup>th</sup> International Conference on Computers and Industrial Engineering*, pp. 570-575, Beijing, P.R. China, 2008.
184. X. Yu, M. Tungare, **W. Fan**, Y. Yuan, M. Pérez-Quñones, E. A. Fox, W. Cameron, L. Cassel, "Using automatic metadata extraction to build a structured syllabus repository", in the *Proceedings of the 10th International Conference on Asian Digital Libraries*, 2007.
185. X. Yu, M. Tungare, **W. Fan**, M. Pérez-Quñones, E. A. Fox., W. Cameron, G. Teng, L. Cassel, "Automatic syllabus classification", in the *Proceedings of the Seventh ACM/IEEE-CS Joint Conference on Digital Libraries ( JCDL)*, 2007.
186. M. Tungare, X. Yu, W. Cameron, G. Teng, M. Pérez-Quñones, E. A. Fox., **W. Fan**, L. Cassel, "Towards a syllabus repository for computer science courses", in the *Proceedings of the Special Interest Group on Computer Science Education (SIGCSE)*, 2007.
187. H. Lin, **W. Fan**, L. Wallace, Z. Zhang, "An empirical study of knowledge community success", in the *Proceedings of the 40<sup>th</sup> Hawaii International Conference on System Sciences (HICSS)*, January 3-6, Big Islands, HI, 2007.
188. M. Tungare, X. Yu, M. Pérez-Quñones, E. A. Fox, **W. Fan**, and L. Cassel, "Towards a standardized representation of syllabi to facilitate sharing and personalization of digital library content", In the *Proceedings of the 4th International Workshop on Applications of Semantic Web Technologies for E-Learning*, Dublin, Ireland, 2006.
189. Robert E. Crossler, France Bélanger, and **W. Fan**, "Determinants of Information Security End User Behavior", Workshop on Information Security and Assurance, Dec. 10, Milwaukee, WI, 2006.

190. Rao Shen, Naga Srinivas Vemuri, **W. Fan**, Edward A. Fox, "What Is a Successful Digital Library?" in the *Proceedings of the 10<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries (ECDL)*, Alicante, Spain, 2006.
191. Naga Srinivas Vemuri, Ricardo da Silva Torres, Rao Shen, Marcos André Gonçalves, **W. Fan**, Edward A. Fox, "A Content-Based Image Retrieval Service for Archaeology Collections", in the *Proceedings of the 10<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries (ECDL)*, Alicante, Spain, 2006.
192. Johnny L. Sam-Rajkumar, Rao Shen, Naga Srinivas Vemuri, **W. Fan**, Edward A. Fox: "EtanaCMV: A Visual Browsing Interface for ETANA-DL Based on Coordinated Multiple Views", in the *Proceedings of the 10<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries (ECDL)*, Alicante, Spain, 2006.
193. R. Shen, N. S. Vemuri, **W. Fan**, E. A. Fox, "Exploring Digital Libraries: Integrating Browsing, Searching and Visualization", in the *Proceedings of 2006 ACM-IEEE Joint Conference on Digital Libraries (JCDL)*, Chapel Hill, NC, 2006.
194. N. S. Vemuri, R. Shen, S. Tupe, **W. Fan**, E. A. Fox, "ETANA-ADD: An interactive tool for integrating archaeological DL collections", in the *Proceedings of 2006 ACM-IEEE Joint Conference on Digital Libraries (JCDL)*, Chapel Hill, NC, 2006.
195. H. Lin, **W. Fan**, Z. Zhang, "Unveiling critical success factors for a Web-based knowledge community", in the *Proceedings of the 16<sup>th</sup> Biennial Conference for International Telecommunication Society*, June 11-16, Beijing, P.R. China, 2006.
196. A. Lacerda, M. Cristo, M. Gonçalves, **W. Fan**, N. Ziviani, "Learning to Advertise", in the *Proceedings of the 29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, Seattle, WA, 2006.
197. L. C. Schaupp, **W. Fan**, F. Belanger, "Determining success for different website goals", in the *Proceedings of the 39<sup>th</sup> Hawaii International Conference on System Sciences (HICSS)*, Kauai, Hawaii, 2006.
198. D. Roussinov, **W. Fan**, "Learning ranking vs. modeling relevance", in the *Proceedings of the 39<sup>th</sup> Hawaii International Conference on System Sciences (HICSS)*, Kauai, Hawaii, 2006. **Best conference paper nominee**
199. N. Liu, J. Yan, F. Bai, B. Zhang, W. Xi, **W. Fan**, Z. Chen, L. Ji, C. Hu, W-Yi Ma, "A similarity reinforcement algorithm for heterogeneous Web pages", in the *Proceedings of the APWeb 2005*, 121-132, 2005.
200. B. Zhang, M. Goncalves, **W. Fan**, Y. Chen and E. A. Fox, P. Calado and M. Cristo, "Intelligent GP fusion from multiple sources for text classification", in the *Proceedings of the ACM 14<sup>th</sup> Conference on Information and Knowledge Management (CIKM)*, Bremen, Germany, 2005.
201. D. Roussinov, **W. Fan**, and F. A. D. Neves, "Semantic verification for fact seeking engines", in the *Proceedings of the ACM 14<sup>th</sup> Conference on Information and Knowledge Management (CIKM)*, 2005.

202. R. S. Torres, A. X. Falcão, B. Zhang, **W. Fan**, E. A. Fox, M. A. Gonçalves, P. Calado, "A new framework to combine descriptors for content-based image retrieval", in the *Proceedings of the ACM 14<sup>th</sup> Conference on Information and Knowledge Management (CIKM)*, 2005
203. D. Roussinov, **W. Fan**, "Learning global and local weighting for information retrieval", in the *Proceedings of 2005 HLT/EMNLP Conference*, Vancouver, Canada, 2005.
204. D. Roussinov, **W. Fan**, "Mining context specific similarity relationships using the World Wide Web", in the *Proceedings of 2005 HLT/EMNLP Conference*, Vancouver, Canada, 2005.
205. H. Li, B. Zhang, Z. Chen, Y. Liu, J. Lei, W. Xi, **W. Fan**, W. Ma, "Improving search results using affinity graph", in the *Proceedings of the 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, Salvador, Brazil, 15-19 Aug. 2005.
206. W. Xi, E. A. Fox, **W. Fan**, B. Zhang, Z. Chen, J. Yan, D. Zhuang, "SimFusion: Measuring similarity using unified relationship matrix", in the *Proceedings of the 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, Salvador, Brazil, 2005.
207. J. Yan, B. Zhang, N. Liu, S. Yan, Q. Cheng, **W. Fan**, Z. Chen and W. Ma, "OCFS: Orthogonal centroid feature selection", in the *Proceedings of the 28th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval*, Salvador, Brazil, 2005.
208. A. Raghavan, N. S. Vemuri, R. Shen, M. A. Goncalves, **W. Fan**, E. A. Fox, "Incremental, semi-automatic, mapping-based integration of heterogeneous collections into archaeological digital libraries: Megiddo case study", in the *Proceedings of the 9<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries (ECDL)*, Vienna, Austria, 2005.
209. R. Shen, M. A. Gonçalves, W. Fan, E. A. Fox, "Requirements gathering and modeling of domain-specific digital libraries with the 5S framework: An archaeological case study with ETANA", in the *Proceedings of the 9<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries (ECDL)*, Vienna, Austria, 2005.
210. N. Liu, F. Bai, J. Yan, B. Zhang, W. Xi, **W. Fan**, Z. Chen, W. Ma, L. Ji and C. Hu "A similarity reinforcement algorithm for heterogeneous Web pages", in the *Proceeding of Asia Pacific Web Conference*, 2005.
211. **W. Fan**, M. Luo, L. Wang, W. Xi, E.A. Fox, "Tuning before feedback: combining ranking function discovery and blind feedback for robust retrieval", in the *Proceedings of the 27<sup>th</sup> Annual International ACM SIGIR Conference*, U. K., 2004.
212. **W. Fan**, M. D. Gordon, P. Pathak, W. Xi and E.A. Fox, "Ranking function optimization for effective web search by Genetic Programming: an empirical study", in the *Proceedings of 37th Hawaii International Conference on System Sciences (HICSS)*, 2004. **Nominated for the best conference paper.**

213. J. Yan, B. Zhang, S. Yan, Z. Chen, **W. Fan**, Q. Yang, W. Ma and Q. Cheng, "IMMC: Incremental maximum margin criterion", in the *Proceedings of the Tenth ACM SIGKDD Conference*, 2004.
214. G. Xue, H. Zeng, Z. Chen, W. Ma, W. Xi, **W. Fan** and Y. Yu, "Optimizing web search using web click-through data", in the *Proceedings of the 13<sup>th</sup> ACM CIKM conference*, 2004.
215. B. Zhang, M. Goncalves, **W. Fan**, Y. Chen and E. A. Fox, P. Calado and M. Cristo, "Intelligent fusion of structural and citation-based evidence for text classification", in the *Proceedings of the 13<sup>th</sup> ACM CIKM conference*, 2004.
216. U. Ravindranathan, R. Shen, M. Goncalves, **W. Fan**, E. A. Fox, and J. W. Flanagan, "Prototyping digital libraries handling heterogeneous data sources - the ETANA-DL case study", in the *Proceedings of the European Conference on Digital Libraries (ECDL 2004)*, Bath, UK, 2004.
217. U. Ravindranathan, R. Shen, M. Goncalves, **W. Fan**, E. A. Fox, and J. W. Flanagan, "ETANA-DL: a digital library for integrated handling of heterogeneous archaeological data", in the Proceedings of 2004 ACM-IEEE Joint Conference on Digital Libraries (JCDL). Tucson, AZ, 2004.
218. U. Ravindranathan, R. Shen, M. Goncalves, **W. Fan**, E. A. Fox, and J. W. Flanagan, "ETANA-DL: managing complex information applications – an archaeology digital library", Demo, in the Proceedings of 2004 ACM-IEEE Joint Conference on Digital Libraries (JCDL). Tucson, AZ, 2004.
219. L. Wang, **W. Fan**, R. Yang, W. Xi, M. Luo, Y. Zhou, E.A. Fox, "Ranking function discovery by genetic programming for robust retrieval", in the *Proceedings of the Twelfth TREC Conference*, 2003.
220. R. Yang, **W. Fan**, L. Wang, W. Xi, M. Luo, Y. Zhou, E.A. Fox, "VT at TREC 2003: the web track report", in the *Proceedings of the Twelfth TREC Conference*, 2003.
221. H. Wu, M. Gordon, **W. Fan**, K. Demaagd, "Principal clusters analysis: a statistical analysis of web navigations", in the *Proceedings of the 23rd International Conference on Information Systems (ICIS)*, Barcelona, Spain, December, 2002.
222. H. Wu, D. Radev, H. Qi and **W. Fan**, "Towards better answer-focused summarization", in the *Proceedings of the 1<sup>st</sup> International Conference on Information Technology & Applications (ICITA)*, Bathurst, Australia, November, 2002.
223. D. Radev, **W. Fan**, H. Qi, H. Wu, "Probabilistic question answering from the Web", with, in the *Proceedings of the 11<sup>th</sup> WWW conference*, Hawaii, May, 2002.
224. D. Radev, H. Qi, **W. Fan**, H. Wu, "Evaluating web-based question answering systems", in the *Proceedings of Third International Conference on Language Resources and Evaluation*, Spain, 2002.
225. D. Radev, H. Qi, Z. Zheng, S. B. Goldensohn, Z. Zhang, **W. Fan**, J. Prager, "Mining the web for answers to natural language questions", in the *Proceedings of 2001 International Conference on Information and Knowledge Management (CIKM)*,

Atlanta, Georgia, 2001.

226. D. Radev, **W. Fan**, Z. Zhang “WebInEssence: A personalized web-based multi-document summarization and recommendation system”, in *the Proceedings of NAACL Workshop on Automatic Summarization*, Pittsburgh, PA, 2001.
227. **W. Fan**, M. D. Gordon and P. Pathak, “Personalization of search engine services for effective retrieval and knowledge management”, in *the Proceedings of the International Conference on Information Systems 2000 (ICIS)*, 20-34, Brisbane, Australia, 2000.
228. D. Radev, **W. Fan**, “Automatic summarization of search engine hit lists”, in *the Proceedings of ACL'2000 Workshop on Recent Advances in Natural Language Processing and Information Retrieval*”, Hong Kong, P. R. China, 2000.
229. P. Pathak, M. D. Gordon, **W. Fan**, “Effective information retrieval using genetic algorithms based matching function adaptation”, in *the Proceedings of the 33rd Hawaii International Conference on System Science (HICSS)*, Hawaii, USA, 2000.
230. **W. Fan**, M. D. Gordon and P. Pathak, “Automatic generation of matching functions by genetic programming for effective information retrieval”, in *the Proceedings of the 1999 Americas Conference on Information Systems (AMCIS)*, Milwaukee, WI, USA, August 13-15, 1999.
231. H. Lu, **W. Fan**, C. H. Goh, S. Madnick and D. Cheung “Discovering and reconciling semantic conflicts: a data mining perspective”, in *the Proceedings of the 7<sup>th</sup> IFIP 2.6 Working Conference on Database Semantics (DS-7)*, Leysin, Switzerland, 1997. Also available as [MIT Sloan Business School Working Paper #3957](#) and [MIT 21st Century Initiative Working Paper #18](#).

## PAPERS UNDER REVIEW/WORKING PAPERS

1. “Examining Competition Behavior in the Mobile App Marketplace: The Effects of Observed Rivalry on the Updating Strategies of Prestige Hedonic Apps”, major revision after the fourth-round review at *MIS Quarterly*.
2. “Cost-effective Key Opinion Leader Marketing in Social Media”, revise and resubmit at *INFORMS Journal of Computing*.
3. “How Do Firms Use Social Media Strategically during Crises: Evidence from Data Breach Incidents”, rejected and retargeted.
4. “A Design Science Approach to Integrating Human Intelligence and Artificial Intelligence in Text Analytics: A Compositionality Perspective”, under first round review at *Information Systems Research*.
5. “Do APP Developers Respond To Unsatisfactory Sales Performance By Being More Agile? A Behavioral Strategy Perspective”, rejected and retargeted.
6. “Identify Comprehensive Product Defect Information from User-Generated Content: A Probabilistic Defect Model”, rejected and retargeted.
7. “On Drivers of User Idea Implementation in Firm-hosted Open Innovation

Communities: An Empirical Study”, rejected and repositioned.

## CONFERENCE PRESENTATIONS

1. “Firm actions towards data breach incidents and firm equity value: an empirical study”, the *50th Hawaii International Conference on System Sciences (HICSS)*, Big Island, HI, 2017.
2. “CrowdIQ: a new opinion aggregation model”, the *50th Hawaii International Conference on System Sciences (HICSS)*, Big Island, HI, 2017.
3. “A domain oriented LDA model for mining product defects from online customer reviews”, *50th Hawaii International Conference on System Sciences (HICSS)*, Big Island, HI, 2017.
4. “A cross-platform comparison of crowdfunding: An exploratory study”, *the Tenth China Summer Workshop on Information Management*, DaLian, P.R. China, 2016.
5. “Automatically assessing information usefulness in online knowledge communities: A text classification framework”, *5th China Summer Workshop on Information Management*, Harbin, P.R. China, 2011.
6. “An expert user ranking algorithm in online communities”, *the 2009 International Conference on New Trends in Information and Service Science (NISS 2009)*, Beijing, China, June 30<sup>th</sup> – July 2<sup>nd</sup>, 2009.
7. “From BPR to BPO: A new marketing strategy for outsourcing vendors”, *First International Conference on Service Outsourcing (ICSC)*, Xi’an, P.R. China, Aug. 2-3. 2007.
8. “Spline function smoothed support vector machine for data classification”, *2007 Informs International Meeting*, Puerto Rico, July 8-11, 2007.
9. “Unveiling critical success factors for a Web-based knowledge community”, *the 16th Biennial Conference for International Telecommunication Society*, June 11-16, Beijing, P.R. China, 2006.
10. “Ranking function optimization for effective web search by Genetic Programming: an empirical study”, the *37th Hawaii International Conference on System Sciences (HICSS)*, Big Island, Hawaii, 2004.
11. “Personalization of search engine services for effective retrieval and knowledge management”, *International Conference on Information Systems 2000 (ICIS)*, Brisbane, Australia, Dec. 10 –14, 2000.
12. “Automatic generation of matching functions by genetic programming for effective information retrieval”, *1999 Americas Conference on Information Systems (AMCIS)*, Milwaukee, WI, USA, August 13-15, 1999.

## INVITED TALKS / PRESENTATIONS

1. “Social media analytics and its applications”, **Keynote Speaker**, *15th International Conference on Informatics and Semiotics in Organisations*, Shanghai, P.R. China, May 23th, 2014.

2. “Overview of social media analytics”, **Keynote Speaker**, *The Fifth International Conference on Computational Intelligence and Software Engineering*, Beijing, P.R. China, July 14th, 2013.
3. “Automatically assessing information usefulness in online knowledge communities: A text classification framework”, Zhejiang University of Finance and Economics, Hangzhou, P.R. China, June 28th, 2011.
4. “Automatically assessing information usefulness in online knowledge communities: A text classification framework”, XiDian University, Xi’an, P.R. China, June 20th, 2011.
5. “Automatically assessing information usefulness in online knowledge communities: A text classification framework”, Xi’an Jiaotong University, Xi’an, P.R. China, June 17th, 2011.
6. “Competitive Actions and Dynamics in the Digital Age: An Empirical Investigation of Social Networking Firms”, Beijing University of Posts and Telecommunications, Beijing, P.R. China, June 25th, 2010.
7. “Overview of Finance and Accounting Outsourcing”, Hangzhou Normal University, Hangzhou, P.R. China, June 21st, 2010.
8. “Competitive Actions and Dynamics in the Digital Age: An Empirical Investigation of Social Networking Firms”, Shanghai Normal University, Shanghai, P.R. China, June 18th, 2010.
9. “Applying FACET to Detect Fraudulent Financial Reporting”, KPMG, New York, Aug. 4<sup>th</sup>, 2009, co-presented with Greg. Jenkins.
10. “Competitive Actions and Dynamics in the Digital Age: An Empirical Investigation of Social Networking Firms”, XiDian University, Xi’an, P.R. China, July 7<sup>th</sup>, 2009.
11. “Competitive Actions and Dynamics in the Digital Age: An Empirical Investigation of Social Networking Firms”, School of Management, Xi’an Jiaotong University, P.R. China, July 6<sup>th</sup>, 2009.
12. “Competitive Actions and Dynamics in the Digital Age: An Empirical Investigation of Social Networking Firms”, Ross School of Business, University of Michigan, Ann Arbor, May 7<sup>th</sup>, 2009.
13. “Fraud Auditing Through Textual Analysis”, Barclays Global Investors, San Francisco, Oct. 17<sup>th</sup>, 2008.
14. “Finding authoritative documents in a knowledge-based community”, XiDian University, Xi’an, May 8<sup>th</sup>, 2008.
15. “Explaining users’ continued usage of social networking service website: An empirical study”, XiDian University, Xi’an, May 8<sup>th</sup>, 2008.
16. “Explaining users’ continued usage of social networking service website: An empirical study”, Xi’an Jiaotong University, Xi’an, May 6<sup>th</sup>, 2008.
17. “Introduction to ranking function discovery by genetic programming”, Tsinghua University, Beijing, April 26<sup>th</sup>, 2008.
18. “Ranking function discovery by genetic programming, a 10-year update”, Microsoft

- Research Asia, Beijing, April 24<sup>th</sup>, 2008.
19. “Tapping the power of text mining”, INFORMS VT Chapter, Feb. 21<sup>st</sup>, 2007.
  20. “A conceptual model for Web-based knowledge community success”, School of Management, Xi’an Jiaotong University, P.R. China, June 2<sup>nd</sup>, 2006.
  21. “A conceptual model for Web-based knowledge community success”, School of Management, Xi Dian University, June 8<sup>th</sup>, P.R. China, 2006.
  22. “Optimizing Web search ranking functions by genetic programming”, School of Computer Science, Xi Dian University, June 8<sup>th</sup>, P.R. China, 2006.
  23. “Introduction to data mining”, Southwest Virginia Chapter of the Institute of Internal Auditors, Jan. 10<sup>th</sup>, 2006.
  24. “Optimizing Web search ranking functions by genetic programming”, Microsoft Research Asia, Beijing, May 16<sup>th</sup>, 2005
  25. “Optimizing Web search ranking functions by genetic programming”, Intel China Research Center, Beijing, May 17<sup>th</sup>, 2005
  26. “Ranking function optimization by genetic programming”, Guanghai School of Management, Peking University, Beijing, P.R. China, May 30<sup>th</sup>, 2005.

## HONORS, AWARDS AND GRANTS

- MSBA Instructor of Year Award, Tippie College of Business, 2019, 2020.
- Charles A. Taff Research Excellence Award, University of Iowa, 2020
- **INFORMS Information System Society Design Science Award** on the social media analytics for product quality surveillance, 2017.
- **Best conference paper award** for the paper “Understanding the determinants of online review helpfulness: A meta-analytic investigation”, the *16th WuHan International Conference on E-Business*, Wuhan, China, 2017.
- **Best conference paper award** for the paper “Assessing reliability of social media data: Lessons from mining TripAdvisor hotel reviews”, *the ENTER 2017 Conference*, Italy, 2017.
- **MeritData Large Research Grant, PI, \$123,000**, “High-speed Rail Infrastructure Big Data Systems, Structures and Key Technologies”, 12/01/17-11/30/18.
- **Best conference paper award** for the paper “Do customer reviews matter in product innovation? An empirical study of the Google play store”, *2015 Business Analytics Congress*, Fort Worth, TX, USA, 2015.
- **Visiting Scholar**, Microsoft Research Asia, Beijing, July 18<sup>th</sup> - July 30<sup>th</sup>, 2012.
- **Visiting Scholar**, Microsoft Research Asia, Beijing, July 18<sup>th</sup> - July 30<sup>th</sup>, 2011.
- **Visiting Scholar**, Microsoft Research Asia, Beijing, June 27<sup>th</sup> - July 4<sup>th</sup>, 2009.
- **NSF NSDL Large Grant DUE-0840719, Co-PI, 2.5 million** (VT portion, \$500,000), 09/15/2008-08/31/2012, “Ensemble: A Pathway Project for Connecting Computing Education”.



- *Visiting Scholar*, Microsoft Research Asia, Beijing, April 19<sup>th</sup>- 30<sup>th</sup>, 2008.
- *Faculty Award for Research Excellence*, Pamplin College of Business, Virginia Tech, 2008.
- *Google Faculty Summit Fellow*, July 26-27, 2007.
- *Mahlon Harrell Research Fellow*, Department of Accounting and Information Systems, Virginia Tech, since June, 2007.
- *Virginia Tech Scholar of the Week*, April 16 – April 29, 2007.

“The Office of the Vice President for Research recognizes information systems and computer science professor **Patrick Fan**, who studies the efficiency and effectiveness of data mining strategies for search engine optimization and text summarization.

His research applies the design and development of novel information technologies --- information retrieval, data mining, text/web mining, personalization and knowledge management techniques --- to support better business information management and decision making for both individuals and organizations. In his short time at Virginia Tech, he has proven to be a prolific scholar, with more than 25 publications in top information systems journals and more than 40 refereed conference proceedings. His work on ranking function discovery for personalized web search results and text-summarization using genetic algorithms and other techniques has been widely cited. His National Science Foundation (NSF) funded work on web-based information extraction and question answering is extending the usefulness of the internet to a broad range of populations.”

- *Warren L. Holtzman Outstanding Educator Award*, Pamplin College of Business, Virginia Tech, 2006.
- *Certificate of Teaching Excellence Award*, Pamplin College of Business, Virginia Tech, 2005-2006.
- *Department of Accounting and Information Systems Summer Research Grants (merit-based)*, 2003, 2004, 2005, 2007, 2008.
- *Virginia Tech International Travel Grants*, 2005, 2006, 2007, 2008, \$1000 each year.
- *PricewaterhouseCoopers LLP Large Research Grant, PI*, 08/01/2007-07/31/2009, “Automated Textual Analysis for Fraud Detection”, **\$200,000**, with Greg Jenkins.
- *NSF CPATH Grant CCF-0722259, Co-PI*, 08/01/2007-07/31/2009, “Collaborative Research: CPATH CB: Living In the KnowlEdge Society (LIKES)”, **\$500,000**, with Edward Fox, Carlos Evia, Christopher Zobel, Steven Sheetz, Robert Beck (Villanova), Wingyan Chung (UTEP), Edward Carr (NCA&T).
- *NSF SGER Grant IIS-0736055, CO-PI*, 08/01/2007-07/31/2008, “SGER: DL-VT416: A Digital Library Testbed for Research Related to 4/16/2007 at Virginia Tech”, \$200,000, with Edward Fox, Christopher North, Naren Ramakrishnan, Donald Shoemaker.
- *NSF DUE Grant DUE-0532825, Co-PI*, 09/01/2005-08/31/2008, “Personalization of Content: Bridging the Gap between NSDL and Its Users through the Course Website”, **\$450,000**, with Lillian Cassel (Villanova), Edward Fox, Manuel Perez.

- **NSF ITR Medium Grant IIS-0325579, Co-PI**, 09/01/2003-12/31/2005, “Managing Complex Information Applications: An Archaeology Digital Library”, **\$385,000**, with Edward Fox, James Flanagan (CWRU).
- **New City Media, Co-PI**, 2004, “Defining and Evaluating Web Site Success”, **\$9324**, with F. Belanger, K. Nakamoto.

## **MEDIA MENTIONS**

- The impact of tax avoidance on the readability of tax footnotes
  - [CFO Magazine](#)
  - [Wall Street Journal](#)
  - [Valuwalk.com](#)
  - [AAA Press Release](#)
  - [Bloomberg](#)
  - [Accountingtoday](#)
  - [TaxProToday](#)
- ACM TechNews on my CACM text mining article  
<http://technews.acm.org/archives.cfm?fo=2006-09-sep/sep-27-2006.html>
- Automatic textual analysis for fraud detection (see [VT news](#))
  - [Newswise Business News](#)
  - [Director of Finance News](#) (U.K.)
  - [The Engineer Online News](#) (U.K.)
  - [Scientific Frontline News](#)
  - [Richmond Times](#) (indexed by LexisNexis, Factiva)
  - [Collegiate Times](#)
  - [American Society for Quality](#)
  - [ID Theft Protect News](#)
  - [Homeland Security Daily Wire News](#)
  - [Chronicle](#)
  - [CFO Magazine \(April 2008\)](#)
  - [Monterey Wealth Report](#) (also featured in many weekly market commentaries, [online blogs](#), [online communities](#))
  - [Research Milestone News](#)
  - [SmartPros Accounting](#)
  - [Individual.com](#)
  - [StickyMinds.com](#)

- Competition in social networking services (see [VT news](#))
  - [Pamplin Magazine Fall 2009](#)
  - [Newswise Business News](#)
  - [Communications of the ACM News](#)
  - [Roanoke Times](#)
  - [LexisNexis News](#)
- Automobile defect discovery from social media (see [VT news](#))
  - [New York Times](#)
  - [Pamplin Magazine Fall 2012](#)
  - [eScience News](#)
  - [i4u.com news](#)
  - [HispanicBusiness.com](#)
  - [F&I and Showroom](#)
  - [UPI.com](#)
  - [Claimsjournal.com](#)
  - [Phys.org](#)
  - [Greenbang.com](#)
  - [InnovationWatch.com](#)
  - [Redorbit.com](#)
  - [ASQ.org](#)
  - [ScienceCodex.com](#)

## **RESEARCH INTERESTS**

- Big Data Analytics
- Business Analytics
- Business Application of AI, Machine Learning, Deep Learning, NLP
- Financial Statement Fraud Detection
- Capital Market Research Using Textual Analysis
- Customer Satisfaction and Loyalty in e-Services
- Competitions in the Digital Industry
- Crisis Management
- Crowd Wisdom
- Customer Intelligence
- Data Science
- Firm Disclosure
- Gamification Systems

- Healthcare Analytics
- Information Integration
- Information Retrieval
- Information System Success
- Information System Strategies
- Information Security Mitigation
- Innovation Assessment
- Knowledge Innovation, Dynamics, and Diffusion in Knowledge Communities
- Knowledge Discovery / Data Mining
- Knowledge Management
- Mobile Analytics
- Open Innovations
- Personalization
- Quality metrics for Information Systems
- Quality Analytics
- Recommender Systems
- Reputation Systems
- Social Computing
- Social Network Analysis
- Social Media Analytics
- Service Computing
- Supply Chain Risks
- Sustainability in Digital Industries
- Text Mining/Analytics
- Topic Modeling
- User Behaviors in Web 2.0
- User Profiling/Modeling

### **TEACHING INTERESTS**

- Accounting Information Systems and Analytics
- Accounting Information Systems
- Accounting Systems and Controls
- Business Analytics
- Business Data Communications
- Business Data Management and Visual Analytics
- Business Intelligence and Data Mining
- Database Management Systems
- E-Commerce/Business Technologies
- Forensic Accounting and Fraud Examinations
- Intermediate Accounting
- Information System/Technology Auditing
- Information Systems Securities
- Knowledge Management

- Management Information Systems
- Object-Oriented System Development
- Principles of Accounting
- Strategic Information Management

## **PROFESSIONAL SERVICE**

### ➤ **Editorial Board Member**

- ❖ Guest Associate Editor, *MIS Quarterly* (since July, 2011)
- ❖ Associate editor, *Information Systems Journal* (2017-2020)
- ❖ Associate editor, *Journal of Electronic Commerce Research* (since June 2020)
- ❖ Associate editor, *INFORMS Journal on Data Science* (since Nov., 2020)
- ❖ Associate editor, *Journal of Association for Information Systems* (Since Nov., 2017)
- ❖ Associate editor, *Information and Management* (since Jan., 2013)
- ❖ Associate editor, *Information Technology and Management* (since Jan., 2013)
- ❖ Associate editor, *Journal of Database Management* (since June, 2004)
- ❖ Associate Editor, *Journal of Electronic Commerce Research and Applications* (2008-2012)
- ❖ Guest Editor, *Journal of Electronic Commerce Research*, 2010 May issue.

### ➤ **National Science Foundation Panel Review Member**

- ❖ REU 2004
- ❖ IIS 2005, 2007
- ❖ CDI, 2009
- ❖ SoCS, 2011, 2016, 2017

### ➤ **Department of Homeland Security Panel Member, 2016-2021**

### ➤ **External Review Member for Hong Kong Research Grant Council, 2008-2020**

### ➤ **Ad Hoc Reviewer for**

- ❖ *ACM Transactions on Information Systems (TOIS)*
- ❖ *ACM Transactions on Internet Technologies (TOIT)*
- ❖ *ACM Transactions on Computer-Human Interaction (TOCHI)*
- ❖ *Communications of the ACM (CACM)*
- ❖ *Decision Support Systems (DSS)*
- ❖ *Data and Knowledge Engineering (D&KE)*
- ❖ *IEEE Transactions on Evolutionary Computation (TEC)*

- ❖ *IEEE Transactions on Knowledge and Data Engineering (TKDE)*
- ❖ *IEEE Transactions on Systems, Man, Cybernetics (TSAC)*
- ❖ *Information Systems (IS)*
- ❖ *Information Sciences (IS)*
- ❖ *Information Systems Research (ISR)*
- ❖ *Information Systems Journal (ISJ)*
- ❖ *Information Processing and Management (IP&M)*
- ❖ *International Journal of Electronic Commerce (IJECE)*
- ❖ *Journal of the American Society for Information Science and Technology (JASIST)*
- ❖ *Journal of Digital Library (JDL)*
- ❖ *Journal of Database Management (JDM)*
- ❖ *Journal of Natural Language Processing (JNLP)*
- ❖ *Management Information System Quarterly (MISQ)*
- ❖ *Management Science (MS)*
- ❖ *International Conference on Information Systems (ICIS)*
- ❖ *Extending Database Technologies (EDBT)*
- **Services for International Conferences and Workshops**
  - ❖ **Program Co-Chair** of the Wuhan International Conference on E-Business, Wuhan, P.R. China, 2019 - now
  - ❖ **Chair of the Executive Board** of INFORMS College of Artificial Intelligence, 2016-2017.
  - ❖ **Conference co-chair**, the 12<sup>th</sup> China Summer Workshop on Information Management, Qingdao, June 23-25, 2018.
  - ❖ **Program co-chair**, The 3<sup>rd</sup> IEEE International Conference On Cloud and Big Data Computing (CBDCom 2017), August 4-8, CA, 2017.
  - ❖ **Program co-chair**, The 1<sup>st</sup> INFORMS Workshop on Data Science, TX, 2017.
  - ❖ **Chair of the Doctoral Consortium** in *Wuhan International Conference on E-Business*, Wuhan, P.R. China, 2014-2018.
  - ❖ *Program committee member* of the INFORMS Conference on Information Systems and Technology (CIST), 2019-2021.
  - ❖ *Program committee member* of the INFORMS Workshop on Data Science, 2018-2021.
  - ❖ *Program committee member of the 2018 INFORMS Conference on Information Systems and Technology (CIST 2018)*, Phoenix, AZ, 2018.
  - ❖ *Program committee member of the 2014 Wuhan International Conference on E-Business*, Wuhan, P.R. China, 2014.

- ❖ *Program committee member of the 2013 International Conference on Information Systems, Milan, Italy, 2013.*
- ❖ *Program committee member of the 19th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Chicago, IL, USA, 2013.*
- ❖ *Program committee member of the 2013 Genetic and Evolutionary Computation Conference, Amsterdam, The Netherlands, 2013.*
- ❖ *Program committee member of the 7th China Summer Workshop on Information Management, Tianjin, P.R. China, 2013.*
- ❖ *Program committee member of the 2013 Wuhan International Conference on E-Business, Wuhan, P.R. China, 2013.*
- ❖ *Program committee member of the 2012 Genetic and Evolutionary Computation Conference, Philadelphia, USA, 2012.*
- ❖ *Program committee member of the 6th China Summer Workshop on Information Management, Beijing, P.R. China, 2012.*
- ❖ *Program committee member of the 2012 Wuhan International Conference on E-Business, Wuhan, P.R. China, 2012.*
- ❖ *Associate Editor of the 2011 International Conference on Information Systems, Shanghai, P. R. China, 2011.*
- ❖ *Program committee member of the 2011 Genetic and Evolutionary Computation Conference, Dublin, Ireland, 2011.*
- ❖ *Program committee member of the 2010 Genetic and Evolutionary Computation Conference, Portland, USA, 2010.*
- ❖ *Program committee member of the 23rd International Conference on Computational Linguistics (COLING 2010), Beijing, P.R. China, 2010.*
- ❖ *Program committee member of the 4th International Conference on Information Systems, Technology and Management, Bangkok, Thailand, March10-12th, 2010.*
- ❖ *Program committee member of the 2009 Genetic and Evolutionary Computation Conference, Montreal, Canada, 2009.*
- ❖ *Associate Editor of the 2009 International Conference on Information Systems, Phoenix, AZ, 2009.*
- ❖ *Track Chair of the InfoScale 2008 (The Third International ICST Conference on Scalable Information Systems), Campania, Italy, 2008.*
- ❖ *Program Committee member of the 3rd International Symposium on Trustworthiness, Reliability and Services in Ubiquitous and Sensor Networks (TRUST-08), Shanghai, China, 2008.*
- ❖ *Program Committee member of third IEEE Asia-Pacific Services Computing Conference (APSCC 2008), Yilan, Taiwan, 2008.*
- ❖ *Program committee member of the 2008 Genetic and Evolutionary Computation Conference, Atlanta, Georgia, 2008.*

- ❖ *Program committee member of the ACM 17<sup>th</sup> Conference on Information and Knowledge Management (CIKM), Napa Valley, California, 2008.*
- ❖ *Program committee member of the ACM 16<sup>th</sup> Conference on Information and Knowledge Management (CIKM), Lisbon, Portugal, 2007.*
- ❖ *Program committee member of the IEEE International Conference on Services Computing (SCC 2007), Salt Lake City, Utah, 2007.*
- ❖ *Program committee member of the Americas Conference on Information Systems (AMCIS), 2007.*
- ❖ *Advisory board member, and program committee member of the Pre-ICIS SIG-DSS workshop, Milwaukee, Wisconsin, 2006.*
- ❖ *Program committee member of the 18th IEEE International Conference on Tools with Artificial Intelligence, Washington, DC, 2006.*
- ❖ *Program committee member of the 2006 International Conference on Innovations in Information Technology, Dubai, 2006.*
- ❖ *Program committee member of the International Conference on Asian Digital Libraries (ICADL), Kyoto, Japan, 2006.*
- ❖ *Associate Editor and Program committee member of the 2006 International Conference on Information Systems, Milwaukee, Wisconsin, 2006.*
- ❖ *Program committee member of the ACM 15<sup>th</sup> Conference on Information and Knowledge Management (CIKM), Washington, DC, 2006.*
- ❖ *Program committee member of the 9<sup>th</sup> Pacific Rim International Conference on Artificial Intelligence, Guilin, China, 2006.*
- ❖ *Program committee member of the 3rd Asia Information Retrieval Symposium (AIRS 2006), Singapore, 2006.*
- ❖ *Program committee member of the Pacific Asia Conference on Information Systems (PACIS), 2006.*
- ❖ *Program committee member of the IEEE International Conference on Services Computing (SCC 2006), Chicago, 2006.*
- ❖ *Program committee member of the HLT-NAACL 2006 Conference, New York, 2006.*
- ❖ *Program committee member of the ICCSA'2006 Workshop on Visual Computing and Multimedia, Scotland, 2006.*
- ❖ *Program committee member of the 2005 International Conference on Information Systems, Las Vegas, 2005.*
- ❖ *Program committee member of the 15th Workshop on Information Technology and Systems (WITS), Las Vegas, 2005.*
- ❖ *Program committee member of the International Conference on Asian Digital Libraries (ICADL), Bangkok, Thailand, 2005.*
- ❖ *Program committee member of the 14th Workshop on Information Technology and Systems (WITS), Washington D.C. 2004.*



- Member of the IEEE Technical Committee on Digital Libraries (since June, 2004).

### **COLLEGE/DEPARTMENTAL SERVICES**

- College Promotion Committee, Tippie College of Business, University of Iowa, 2021
- Dean's Advisory Council, Tippie College of Business, University of Iowa, 2019 –
- Department Research Committee, Department of Business Analytics, University of Iowa, 2018-now
- Faculty Director, Tippie Analytics Cooperative, Tippie College of Business, University of Iowa, 2020-now
- Virginia Tech MBA advisory committee, 2009-2010, 2014-2015
- Virginia Tech ACIS department research committee member (2002-2018)
- Virginia Tech ACIS department academic program committee (2002-2018)
- Virginia Tech Faculty advisor, information system option (2002-2018)
- Virginia Tech Faculty advisor board member for Information Systems Society (2002-2018)
- Virginia Tech Virginia Tech Faculty advisor for Asian Chinese Association (2004-2005)
- Virginia Tech Faculty advisor for Beta Alpha Psi (2005-2006)
- Virginia Tech Faculty advisor for Information Systems Society (2002-2018)
- Virginia Tech BIT faculty search committee (2017)
- Virginia Tech CS department faculty search committee (2004)
- Virginia Tech Faculty advisor for Upward Bound Program at VT (2007) - advising one high school student Ellie Trump from Christiansburg High School, VA.

### **STUDENTS ADVISED/BEING ADVISED AT UNIVERSITY OF IOWA**

- ❖ Chengyue Huang (Business Analytics, Ph.D.), Chair
- ❖ Maryam Rahmani Moghaddam (Business Analytics, Ph.D.), Chair
- ❖ Ling Tong (Business Analytics, Ph.D.), Chair
- ❖ Xiangyu Wang (Informatics, Ph.D.)
- ❖ Min Zhang (Informatics, Ph.D.), Chair
- ❖ Alaa Edden AlBashayreh (Nursing, Ph.D.)
- ❖ Yunyi Li (Informatics, Master)
- ❖ Kezhen Zhou (CS, Master)
- ❖ Anindita Bandyopadhyay (Business Analytics, Ph.D.)
- ❖ Aravinthasamy Sivamurugan (Economics, Undergraduate)

## STUDENTS ADVISED/BEING ADVISED AT VIRGINIA TECH

- Ph.D. students
  - ❖ Lemuria Carter (ACIS)
  - ❖ Prashant Chandrasekar (CS)
  - ❖ Yuxin Chen (CS)
  - ❖ (David) Jing Dai (CS)
  - ❖ Qianzhou Du (BIT), Co-Chair
  - ❖ Rich Gruss (BIT)
  - ❖ Marcos Andre Goncalves (CS)
  - ❖ Islam Harb (CS)
  - ❖ Sukhwa Hong (BIT)
  - ❖ Jian Jiao (CS). Chair
  - ❖ Seonho Kim (CS)
  - ❖ Lijun Lei (ACIS)
  - ❖ Hui Lin (ACIS). Chaired
  - ❖ Xiaomo Liu (CS). Chaired
  - ❖ James Long (ACIS)
  - ❖ Yufeng Ma (CS). Chair
  - ❖ Michele Meckfessel (ACIS). Chair
  - ❖ James Penner (ACIS). Chaired
  - ❖ Zhilei Qiao (BIT), Co-Chair
  - ❖ Christian Schaupp (ACIS)
  - ❖ Rao Shen (CS)
  - ❖ Ziqian Song (CS), Chair
  - ❖ Sunshin Lee (CS)
  - ❖ Wensi Xi (CS). Chair
  - ❖ Long Xia (BIT), Co-Chair
  - ❖ Xiaoyan Yu (CS)
  - ❖ Nohel Zaman (BIT)
  - ❖ Baoping Zhang (CS)
  - ❖ Xuan Zhang (CS), Chair
  - ❖ Mi Zhou (ACIS), Chair
- Master Students

- ❖ Yi Cao (CS)
- ❖ Doug Gordon (CS)
- ❖ Bin He (CS)
- ❖ Rohit Kelapure (CS)
- ❖ Bing Liu (CS)
- ❖ Shu Liu (CS)
- ❖ Pengbo Liu (CS)
- ❖ Siyu Mi (CS)
- ❖ V. Vikram Raj (CS)
- ❖ Unni Ravindranathan (CS)
- ❖ Johnny L.S. Rajkumar (CS)
- ❖ Ziqian Song (CS)
- ❖ Lijie Tang (CS)
- ❖ Srinivas Vemuri (CS)
- ❖ Yu Wang (CS)
- ❖ Li Wang (CS)
- ❖ Ye Zhou (CS)
- ❖ Wenjie Zhuang (CS)
- ❖ Haibei Zhao (ACIS)
- ❖ Xiaoyu Zhang (CS)
- Undergraduate Students
  - ❖ Stephanie Rich (CS)