

Wingyan Chung, Ph.D.

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1. SHORT BIOGRAPHY

Dr. Wingyan Chung received a Ph.D. in Management Information Systems from The University of Arizona, an M.S. in IT management and an BBA in business administration from The Chinese University of Hong Kong. He has **over thirty refereed articles** published, accepted, or forthcoming in *Journal of Management Information Systems*, *Communications of the ACM*, *Decision Support Systems*, *International Journal of Human-Computer Studies*, *IEEE Computer*, *Journal of the American Society for Information Science and Technology*, Hawaii International Conference on System Sciences, and ACM/IEEE-CS Joint Conference on Digital Libraries, among others. Dr. Chung has been classified as an **Outstanding Professor/Researcher** by the U.S. Government Department of Homeland Security in 2005, obtained the **Best Research Paper Award** in CIS from the UTEP College of Business Administration, received the **DARPA Young Investigators Initiative Award** in 2003, and was nominated by the UTEP provost for the **Microsoft New Faculty Fellowship Award** in 2004. A co-principal investigator for the NSF-funded project titled "Living in the KnowlEdge Society (LIKES)," Dr. Chung was the **host of the first NSF LIKES workshop held in SCU**. He was also an assistant professor in The University of Texas at El Paso between 2004 and 2007 and a research associate in the Artificial Intelligence Lab at The University of Arizona between 2000 and 2004, where he led several research projects and wrote research proposals leading to federal funding. A certified teacher since 1998, Dr. Chung has **more than ten years' teaching and curriculum development experiences** in the U.S. and Hong Kong.

2. RESEARCH INTERESTS

Knowledge management, business intelligence, Web analysis and mining, design science in IS, security informatics, information visualization, data and text mining, e-commerce, human-computer interaction.

3. TEACHING INTERESTS

Database management, IT management, business intelligence, programming, system analysis and design, Web development, knowledge management, decision support systems.

4. EDUCATION

- **Ph.D.** in Management Info. Systems (Minor: Computer Science), The University of Arizona, 2004.
 - The Arizona's MIS program has been ranked consistently among the top 5 in the U.S.
- **M.S.** in Information and Technology Management, The Chinese University of Hong Kong, 2000.
- **Postgraduate Cert. in Education** (Business and Accounts), The University of Hong Kong, 1997.
- **Bachelor of Business Administration (Hon)**, The Chinese University of Hong Kong, 1993.

5. EXPERIENCE

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| 2007 – now | Assistant Professor, Department of Operations and Management Information Systems, Leavey School of Business, Santa Clara University. |
| 2004 – 2007 | Assistant Professor, Department of Information and Decision Sciences, College of Business Administration, The University of Texas at El Paso. |
| 2001 – 2004 | Research Associate, Artificial Intelligence Lab, Department of Management Information Systems, Eller College of Management, The University of Arizona. |
| 2000 – 2001 | Graduate Teaching Associate, Department of Management Information Systems, Eller |

College of Management, The University of Arizona.

- 1998 – 2000 Teaching Assistant, Department of Decision Sciences and Managerial Economics, Faculty of Business Administration, The Chinese University of Hong Kong.
- 1997 – 1999 Business Studies Subject Committee Member (Sixth-Form, pre-university level), Curriculum Development Institute, Hong Kong Education Department.
- 1997 – 1999 Commerce Subject Committee Member (Secondary level), Curriculum Development Institute, Hong Kong Education Department.
- 1998 – 1999 Commercial Subject Textbook Review Panel Member, Textbook Committee, Hong Kong Education Department.
- 1994 – 1998 Graduate Master and Commercial Subjects Panel Chairman, CCC Tam Lee Lai Fun Memorial School, Hong Kong.
- 1993 – 1994 Graduate Master, Ho Fung College, Hong Kong.

6. REFEREED PUBLICATIONS

BOOKS/BOOK CHAPTERS

1. **Chung, W.** and Chen, H. "Business intelligence systems: current technologies and case studies," submitted to *Elsevier Handbook in Information Systems Series* (fully accepted, forthcoming).
2. **Chung, W.** "An Automatic Text Mining Framework for Knowledge Discovery on the Web," Ph.D. Dissertation, The University of Arizona, 2004.

JOURNAL ARTICLES

3. **Chung, W.** "Web Searching in a Multilingual World," *Communications of the ACM*, May 2008.
4. Chen, H., **Chung, W.**, Qin, J., Reid, E., Sageman, M. and Weimann, G. "Uncovering the Dark Web: A Case Study of Jihad on the Web," submitted to *Journal of the American Society for Information Science and Technology* (fully accepted, forthcoming).
5. **Chung, W.** "Visualizing E-Business Stakeholders on the Web: A Methodology and Experimental Results," submitted to *International Journal of Electronic Business*, 6 (1), 2008, pp. 25-46.
6. **Chung, W.**, Lai, G., Bonillas, A., Xi, W. and Chen, H. "Organizing domain-specific information on the Web: An experiment on the Spanish business Web directory," *International Journal of Human-Computer Studies*, 66 (2), 2008, pp. 51-66.
7. Leroy, G., Xu, J., **Chung, W.**, Eggers, S., and Chen, H. "An end-user evaluation of query formulation and results review tools in three medical meta-search engines," *International Journal of Medical Informatics*, 76 (11-12), 2007, pp. 780-789.
8. **Chung, W.** "Studying information seeking on the non-English Web: An experiment on a Spanish business Web portal," *International Journal of Human-Computer Studies*, 64 (9), 2006, pp. 811-829 (among the **top 25 most downloaded papers** of the journal during Jul-Sep 2006).
9. **Chung, W.**, Bonillas, A., Lai, G., Xi, W. and Chen, H. "Supporting Non-English Web Searching: An Experiment on the Spanish Business and the Arabic Medical Intelligence Portals," *Decision Support Systems*, 42(3), 2006, pp. 1697-1714.
10. **Chung, W.**, Chen, H., Chang, W. and Chou, S. "Fighting cybercrime: a review and the Taiwan experience," *Decision Support Systems*, 41(3), 2006, pp. 669-682 (among the **top 25 most downloaded papers** of the journal during Jan-Mar 2006).
11. **Chung, W.**, Chen, H. and Nunamaker, J. "A visual framework for knowledge discovery on the Web," *Journal of Management Information Systems*, 21(4), 2005, pp. 57-84.
12. **Chung, W.**, Chen, H., Chaboya, L.G., O'Toole, C. and Atabakhsh, H. "Evaluating event visualization: a usability study of COPLINK Spatio-Temporal Visualizer," *International Journal of Human-Computer Studies*, 62(1), 2005, pp. 127-157.
13. Marshall, B., McDonald, D., Chen, H. and **Chung, W.** "EBizPort: collecting and analyzing business intelligence information," *Journal of the American Society for Information Science and Technology*, 55(10), 2004, pp. 873-891.

14. **Chung, W.**, Zhang, Y., Huang, Z., Wang, G., Ong, T.-H. and Chen, H. "Internet searching and browsing in a multilingual world: an experiment on the Chinese Business Intelligence Portal (CBizPort)," *Journal of the American Society for Information Science and Technology*, 55(9), 2004, pp. 818-831.
15. Chen, H., **Chung, W.**, Xu, J., Wang, G., Chau, M. and Qin, Y. "Crime data mining: a general framework and some examples," *IEEE Computer*, 37(4), April 2004, pp. 50-56.
16. Huang, Z., **Chung, W.** and Chen, H. "A graph model for e-commerce recommender systems," *Journal of the American Society for Information Science and Technology*, 55(3), 2004, 259-274.
17. Lai, V.S. and **Chung, W.** "Managing international data communications: a Delphi study of issues," *Communications of the ACM*, 45(3), March 2002, pp. 89-93.

PROCEEDINGS/PRESENTATIONS AT SEMINARS, CONVENTIONS, MEETINGS

18. **Chung, W.** and Leung, A. "Supporting Web searching of business intelligence with information visualization," *Proceedings of the IEEE/WIC/ACM International Conference on Web Intelligence*, November 2-4, 2007, Fremont, CA, 2007, pp. 807-811.
19. **Chung, W.** and Wang, G. "Profiling and Visualizing Cyber-criminal Activities: A General Framework," *Proceedings of the International Conference on Intelligence and Security Informatics*, May 23-24, 2007, New Brunswick, NJ, 2007, p. 377.
20. **Chung, W.** "Supporting E-Business Stakeholder Analysis with a Visualization Tool: An Experiment with Students and Business Practitioners," *Proceedings of The Fifth Workshop on e-Business*, Milwaukee, WI, December 9, 2006.
21. **Chung, W.** "Evaluating the use of a visual approach to business stakeholder analysis," *Proceedings of the Fifth Annual Workshop on HCI Research in MIS*, Milwaukee, WI, December 9, 2006, pp.40-44.
22. **Chung, W.** "Designing Web-based Business Intelligence Systems: A Framework and Case Studies," *Proceedings of The First International Conference on Design Science Research in Information Systems and Technology*, Claremont, CA, February 24-25, 2006, pp. 147-171.
23. Tseng, B., Huang, C.C., **Chung, W.** and Jiang, F. "Applying a Hybrid Data Mining Approach to Tumor Malignancy Prediction", *Proceeding of the Industrial Engineering Research 2006 Conference*, Orlando, FL, May 20-24. 2006.
24. **Chung, W.** "Decision Support in Business Stakeholder Analysis: An Automatic Classification Approach versus Human Judgment," *Proceedings of the 36th Annual Meeting of the Decision Sciences Institute*, San Francisco, CA, November 19-22, 2005, pp. 15681-15686.
25. **Chung, W.** "Searching for non-English Web content: an empirical study of the Spanish Business Intelligence Portal," *Proceedings of the Americas Conference on Information Systems*, Omaha, NE, August 11-14, 2005, pp. 2298-2305.
26. **Chung, W.**, Lai, G., Bonillas, A., Elhourani, T., Tseng, B., and Chen, H. "Building Web directories in different languages for decision support: a semi-automatic approach," *Proceedings of the Americas Conference on Information Systems*, Omaha, NE, August 11-14, 2005, pp. 1470-1478.
27. Tseng, B., Kwon, Y., Ertekinc, Y.M., **Chung, W.**, and Jiang, F. "Comparative analysis between in-process CNC touch probe gauging and post-process CMM inspection," *Proceedings of IEE Industrial Engineering Research Conference*, Atlanta, GA, May 14-18, 2005.
28. **Chung, W.** "Business Stakeholder Analyzer: An automatic classification approach to facilitating collaborative commerce on the Web," *Proceedings of the 38th Hawaii International Conference on System Sciences*, Island of Hawaii, HI, January 3-6, 2005.
29. **Chung, W.**, Elhourani, T., Bonillas, A., Lai, G., Xi, W., and Chen, H. "Supporting information seeking in multinational organizations: A knowledge portal approach," *Proceedings of the 38th Hawaii International Conference on System Sciences*, Island of Hawaii, HI, January 3-6, 2005.
30. Chen, H., Qin, J., Reid, E., **Chung, W.**, Zhou, Y., Xi, W., Lai, G., Bonillas, A. and Sageman, M., "The Dark Web Portal: Collecting and Analyzing the Presence of Domestic and International Terrorist Groups on the Web," *Proceedings of the 7th International Conference on Intelligent Transportation Systems (ITSC)*, Washington D.C., October 3-6, 2004.
31. Reid, E., Qin, J., **Chung, W.**, Xu, J., Zhou, Y., Schumaker, R., Sageman, M. and Chen, H. "Terrorism knowledge discovery project: a knowledge discovery approach to addressing the threats of terrorism," *Proceedings of the Second Symposium on Intelligence and Security Informatics*, June 10-11 2004, Tucson, AZ, 2004, pp.125-145.
32. **Chung, W.**, Chaboya, L.G., O'Toole, C. and Atabakhsh, H. "An evaluation methodology for coordinated

- event visualization in digital libraries," *Proceedings of The Fourth ACM/IEEE-CS Joint Conference on Digital Libraries*, Tucson, AZ, June 7-11, 2004, p. 393.
33. Chang, W., **Chung, W.**, Chen, H. and Chou, S. "An international perspective on fighting cybercrime," *Proceedings of the First NSF/NIJ Symposium on Intelligence and Security Informatics*, Tucson, AZ, June 2-3, 2003, pp. 379-384.
 34. Zhou, Y., Qin, J., Chen, H., Huang, Z., Zhang, Y., **Chung, W.** and Wang, G. "CMedPort: a cross-regional Chinese medical portal," *Proceedings of the Third ACM/IEEE-CS Joint Conference on Digital Libraries*, Houston, TX, May 27-31, 2003, p. 379.
 35. Chen, H., **Chung, W.**, Qin, Y., Chau, M., Xu, J., Wang, G., Zheng, R. and Atabakhsh, H. "Crime data mining: an overview and case studies," *Proceedings of the National Conference for Digital Government Research*, Boston, MA, May 18-21, 2003, pp. 45-48.
 36. **Chung, W.**, Chen, H. and Nunamaker, J. "Business Intelligence Explorer: A knowledge map framework for discovering business intelligence on the Web," *Proceedings of the 36th Hawaii International Conference on System Sciences*, Island of Hawaii, HI, January 6-9, 2003.
 37. Huang, Z., **Chung, W.**, Ong, T. and Chen, H. "A graph-based recommender system for digital library," *Proceedings of the Second ACM/IEEE-CS Joint Conference on Digital Libraries*, Portland, OR, July 14-18, 2002, pp. 65-73.
 38. **Chung, W.** "A conceptual analysis on correlating the CASE success factors with the dimensions of IS function performance," *Proceedings of the 5th World Multiconference on Systemics, Cybernetics and Informatics (SCI)*, Orlando, FL, July 22-25, 2001.
 39. **Chung, W.** "The use of large-scale non-linear integer programming in scheduling the timetable of a secondary school in Hong Kong," *Proceedings of the Fourth Asia Pacific Decision Science Institute Conference*, Shanghai, June 10-13, 1999.

7. WORKING PAPERS

1. "Supporting browsing of the underdeveloped Web," with Hsinchun Chen.
2. "Discovering business intelligence with automatic classification techniques," with Manoochehr Ghiassi.
3. "A framework for business stakeholder analysis: An experiment of classifying stakeholders on the Web," with Hsinchun Chen and Edna Reid.
4. "Fighting cybercrime with Web mining technologies: a case study on cyber-fraud," with Alan G. Wang.
5. "Living in the KnowlEdge Society: An initiative to revitalize the undergraduate computing and IT curriculum," with Edward Fox, Steven Sheetz, Patrick Fan, Christopher Zobel, Carlos Evia, Robert Becks, and Ed Carr.
6. "Mining and visualizing business intelligence for multinational enterprises."

8. DISSERTATION

- Title: An Automatic Text Mining Framework for Knowledge Discovery on the Web.
- Publication Year: 2004; UMI Number: 3132206.
- Dissertation director: Dr. Hsinchun Chen ([Top 10 IS researchers](#), CAIS 2005; IEEE Fellow).
- Committee members: Dr. Jay F. Nunamaker Jr. ([Top 10 IS researchers](#), CAIS 2005), Dr. J. Leon Zhao (2005 IBM Faculty Award Winner), Dr. Richard T. Snodgrass (2005 Winner of Outstanding Contribution to ACM), Dr. Terry Langendoen (Fellow, American Asso. for the Advancement of Science).

9. GRANTS ACTIVITIES

- | | |
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| Mar. 2008 | Presidential Research Grant, Santa Clara University (funded, \$2,417). |
| Jan. 2007 | Co-PI, "Living In the KnowlEdge Society (LIKES)" submitted to NSF CISE Pathways to Revitalized Undergraduate Computing Education (funded, \$70,000). |
| June 2006 | PI, UTEP College of Business Administration Summer Grant (funded, \$5,000). |
| May 2005 | PI, "Securing the U.S.-Mexico Border: Event Visualization for Crime Analysis and Investigation," submitted to NSF Advancing Collab. & Intelligent Systems, (not funded). |
| May 2005 | PI, UTEP College of Business Administration Summer Grant (funded, \$5,000). |
| Summer 2005 | PI, supplemental grant from UTEP Research and Sponsored Project Office (funded, \$1,510). |
| Nov. 2004 | PI, "Discovering BI from Multinational Stakeholders on the Web: A Multilingual Text |

- October 2004 Mining Framework,” submitted to Microsoft New Faculty Fellowship Prog., (not funded).
 “Discovering Business Intelligence from Stakeholders on the Web: A Knowledge Network Approach” submitted to URI Grant Program, UTEP (**funded: \$2,200**).
- Nov. 2002 “NSF/CIA KDD Testbed, Evaluation, and Research Framework” submitted to National Science Foundation's KDD Program (**funded: US\$250,000**).

10. TEACHING

Courses

SCU

- Spring 2008 OMIS 366 / MSIS 603 – Database Management Systems
 Spring 2008 OMIS 105 – Database Management Systems
 Winter 2008 OMIS 34 – Management Information Systems
 Fall 2007 MSIS 621 / OMIS 386 – Business Intelligence and Data Warehousing
 Fall 2007 OMIS 113 – Data Warehousing and Data Mining

UTEP

- Spring 2007 CIS 5394 – Business Intelligence and Security Informatics
 Spring 2007 CIS2320 – Intro. to Computers and Compu. App. Software
 Fall 2006 CIS 4365 – Database Management, UTEP IDS Department
 Fall 2006 CIS 4320 – OO Programming Env., UTEP IDS Department
 Summer 2006 CIS 4365 – Database Management, UTEP IDS Department
 Spring 2006 CIS 5311 (MBA) – MIS Theory & Practice, UTEP IDS Dept
 Spring 2006 CIS 4365 – Database Management, UTEP IDS Department
 Fall 2005 CIS 4365 – Database Management, UTEP IDS Department
 Fall 2005 CIS 4320 – Object-oriented Programming Environment, UTEP IDS Department.
 Summer 2005 CIS 4365 – Database Management, UTEP IDS Department
 Spring 2005 CIS 4330 / CIS 5394 (MBA / senior level) – Expert Systems and Decision Support Systems, UTEP IDS Department.
 Spring 2005 CIS 5311 (MBA) – MIS Theory and Practice, UTEP IDS Department.
 Fall 2004 CIS 4320 – Object-oriented Programming Environment, UTEP IDS Department.
 Fall 2004 CIS 4399 – Current Topics in CIS: Knowledge management and data mining, UTEP IDS Department

Arizona / HK

- Winter 2003 Instructor, Intro to Business Information Systems, Dept of MIS, Univ. of Arizona.
 2000 – 2001 Teaching assistant, Dept. of MIS, Univ. of Arizona.
 1998 – 2000 Teaching assistant, Dept. of Decision Sci. & Mgr. Econ., Chinese Univ. of Hong Kong.
 1994 – 1998 Business Studies (pre-university level), TLLF Memorial School, Hong Kong.
 1994 – 1998 Commerce (certificate level), TLLF Memorial School, Hong Kong.

11. SERVICES

Internal Services

- 2007 - now Advisor of the SCU OMIS Student Network
 2005 - 2006 UTEP undergraduate CIS curriculum coordinator
 2006 Proposed a new graduate course titled “Business Intelligence and Security Informatics” that was approved by UTEP IDS Faculty members.

Academic Conference Program Committee

- 2007 Local Chair, The First NSF LIKES Workshop (Santa Clara University)
 2006 The Fifth Annual Workshop on HCI Research in MIS (Milwaukee)
 2006 IEEE International Conference on Intelligence and Security Informatics (San Diego)
 2005 IEEE International Conference on Intelligence and Security Informatics (Atlanta)

Refereed Journal Reviewer

- 2004 - 2007 Journal of Management Information Systems (8 articles)
 2006, 2008 International Journal of Electronic Commerce (3 articles)
 2006 Enterprise Information Systems (1 article)
 2006 IEEE Transactions on Systems, Man, and Cybernetics - Part C (1 article)

2005 IEEE Transactions on Systems, Man, and Cybernetics - Part A (1 article)
 2004 ACM Journal on Educational Resources in Computing (1 article)
 2004 IEEE Transactions on Neural Networks (1 article)
 2002 - 2007 Decision Support Systems (8 articles)
 2003 - 2006 ACM Transactions on Information Systems (3 articles)
 2003 - 2004 Journal of the American Society for Information Science and Technology (6 articles)
 2003 Presence: Teleoperators & Virtual Environments (The MIT Press) (1 article)

Refereed Conference Reviewer

2002, 2006 International Conference on Information Systems (2 articles)
 2004 The Eighth International Conference on Information Visualization (1 article)
 2003 - 2008 International Conference on Intelligence and Security Informatics (19 articles)
 2002, 2003 ACM/IEEE Joint Conference on Digital Libraries (4 articles)
 2002, 2003 IEEE/WIC International Conference on Web Intelligence (4 articles)
 2002, 2003 European Conference on Digital Libraries (6 articles)
 2001, 02, 03 International Conference on Asian Digital Libraries (4 articles)
 2003 Workshop on Information Technology and Systems (1 article)
 2003 IEEE International Conference on Data Mining (1 article)
 2003 IEEE/WIC International Conference on Web Intelligence (1 article)
 2002, 2005 Hawaii International Conference on System Sciences (2 articles)
 2002 The International Conference of Digital Library (Beijing) (4 articles)

Textbook Reviewer

2006 Connolly, Begg, and Holwczak "Business Database Systems," Addison Wesley.
 2005 Lewis & Loftus "Java Software Solutions, 5/e," Addison Wesley.
 2005 Turban & Aronson "Decision Support Systems, 8/e," Prentice Hall.

12. PROFESSIONAL MEMBERSHIPS

2000 - now Association for Computing Machinery
 2000 - now Institute of Electrical and Electronics Engineers
 2003 - now Association for Information Systems
 2005 - 2007 Academy of Management
 2007 - now The Institute for Operations Research and the Management Sciences

13. HONORS AND AWARDS

Apr. 2007 **Outstanding Performance Award**, presented by the UTEP Vice-President of Research.
 Jul-Sep 2006 Publication titled "Studying information seeking on the non-English Web: An experiment on a Spanish business Web portal" ranked among the **top 25 most downloaded papers** of the *International Journal of Human-Computer Studies*, a top-tier journal in the information systems discipline.
 Jun. 2006 Included in **Marquis Who's Who in America Science and Engineering, 2007**.
 Apr. 2006 **Best Research Paper (CIS) Award**, by the Dean of UTEP College of Business Admin.
 Apr. 2006 **Outstanding Performance Award**, presented by the UTEP President to the IDS Department for the most research grant activities in the college.
 Jan-Mar 2006 Publication titled "Fighting cybercrime: a review and the Taiwan experience" ranked among the **top 25 most downloaded papers** of *Decision Support Systems*, a top-tier journal in the information systems discipline.
 Aug. 2005 Included in **The 60th Marquis Who's Who in America, 2006** and **The 7th Marquis Who's Who in America Education, 2006**.
 Apr. 2005 Classified as an "**Outstanding Professor / Researcher**" by the Department of Homeland Security, The United States Government.
 Nov. 2004 Nominated by UTEP Provost for **Microsoft New Faculty Fellowship Award**.
 Oct. 2003 **Young Investigators Initiative Award** offered by the US Defense Advanced Research Projects Agency (DARPA).
 2000 – 2004 **Graduate assistantship**, Dept of MIS, University of Arizona.
 Dec. 2003 **Conference travel stipend**, Dept of MIS, University of Arizona.
 Sep. 1999 **Scholarship Award**, M.S. Program in IT Mgmt, The Chinese University of Hong Kong.
 Sep. 1999 Finalist, the **Rotary International Foundations Ambassadorial Scholarship**.

July 1998 Certificate of Registration as a teacher, Hong Kong Govt. Education Dept.

Last updated on April 7, 2008.