

# Curriculum Vitae

## Byron Marshall

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Oregon State University  
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Corvallis, Oregon 97331

### Affiliation

September 2005 – Present Assistant Professor – Oregon State University, College of Business,  
Department of Accounting, Finance, and Information Management

2001-2005 Research Associate at the Artificial Intelligence Lab at the University of Arizona

### Education

2001-2005 University of Arizona, MIS Department, Tucson, AZ

PhD - Management Spring 2005

Major: Management Information Systems, Minor: Linguistics

Advisor: Dr. Hsinchun Chen

1995 California State University, Fresno Fresno, CA

MBA – emphasis in accounting Graduated with distinction

1988 California State University Fresno Fresno, CA

BS – Business Administration – Computer Applications and Systems - Cum Laude

### Research Interest

Knowledge Management: Matching knowledge elements in informal conceptual graphs to store, retrieve, and process information for education, business, and other managed organizations. Current efforts include the aggregation and application of relations extracted from the free text of biomedical abstracts, the selection of interesting associations in large networks of criminal activity, and algorithms that support the use of concept mapping tools in education.

### Teaching

University of Arizona: MIS 363, Systems Analysis and Design for Business Managers

Oregon State University:

BA378, Accounting Information Management (2006-2007)

BA370, Business Systems Analysis (2006)

BA372, Business Systems Development (2006)

BA420, Accounting Info. Systems Analysis and Design -IT Auditing (2007)

BA471, Management Information Systems (2006)

### Service

Faculty Senate, Oregon State University (2007)

Student Volunteer Coordinator, ACM/IEEE Joint Conference on Digital Libraries (JCDL 2004) with more than 400 attendees. As a member of the organizing committee I participated in the overall conference planning and also coordinated the activities of 20+ student volunteers: recruiting, publicity, scheduling, and (of course) helping out.

## Journal Publications

["User-Centered Evaluation of Arizona BioPathway: An Information Extraction, Integration, and Visualization System"](#), Karin D. Quiñones, Hua Su, Byron Marshall, Shauna Eggers, and Hsinchun Chen, IEEE Transactions on Information Technology in Biomedicine (Accepted September, 2006)

["Moving Digital Libraries into the Student Learning Space: the GetSmart Experience"](#)  
Byron Marshall, Hsinchun Chen, Rao Shen, and Edward A. Fox, ACM JERIC -- Journal on Educational Resources in Computing Vol.6, No.1, Mar 2006, Article No. 2

["Aggregating Automatically Extracted Regulatory Pathway Relations"](#) Byron Marshall, Hua Su, Daniel McDonald, Shauna Eggers, and Hsinchun Chen, IEEE Transactions on Information Technology in Biomedicine, Forthcoming, IEEE Transactions on Information Technology in Biomedicine, Vol. 10, No.1, Jan 2006, Pages 100-108

["Matching Knowledge Elements in Concept Maps using a Similarity Flooding Algorithm"](#)  
Byron Marshall, Hsinchun Chen, Therani Madhusudan, Decision Support Systems, Vol.42, No.3, Dec 2006, Pages 1290-1306

["EBizPort: Collecting and Analyzing Business Intelligence Information"](#), Byron Marshall, Dan McDonald, Hsinchun Chen, Wingyan Chung, Journal of the American Society for Information Science and Technology (JASIST), 55(10) : 873-891 (2004) Special Issue on Document Search Interface Design for Large-scale Collections and Intelligent Access

["A Case-based Reasoning Framework for Workflow Model Management"](#), Therani Madhusudan, J. Leon Zhao, and Byron Marshall, Data and Knowledge Engineering, 50: 87-115 (2004) Special Issue on Business Process Management.

["Extracting Gene Pathway Relations Using a Hybrid Grammar: The Arizona Relation Parser"](#), Dan McDonald, Hsinchun Chen, Hua Su, & Byron Marshall, Bioinformatics, 20: 3370-8 (2004)

## Conference Paper Presentations

"Standards or Semantics for Curriculum Search?" Byron Marshall Rene Reitsma and Martha Cyr, Proceedings of the 7th Joint ACM/IEEE Conference on Digital Libraries (JCDL 2007), June 17-22, 2007, Vancouver, British Columbia, Canada

["Using Importance Flooding to Identify Interesting Networks of Criminal Activity"](#) Byron Marshall and Hsinchun Chen, Proceedings of the IEEE International Conference on Intelligence and Security Informatics (ISI-2006), May 23-24, 2006, San Diego, U.S.A.

["Visualizing Aggregated Biological Pathway Relations"](#) Byron Marshall, Karin Quiñones, Hua Su, Shauna Eggers, and Hsinchun Chen, Proceedings of the 2005 Joint ACM/IEEE Conference on Digital Libraries (JCDL 2005), June 7-11, 2005, Denver, CO

["Linking Ontological Resources Using Aggregatable Substance Identifiers to Organize Extracted Relations"](#) Byron Marshall, Hua Su, Dan McDonald, and Hsinchun Chen, Pacific Symposium on Biocomputing, Jan 4-8, 2005, Big Island, Hawaii

["Element Matching in Concept Maps"](#), Byron Marshall, Therani Madhusudan, Proceedings of the 2004 Joint ACM/IEEE Conference on Digital Libraries (JCDL 2004) June 7-11, 2004, Tucson, AZ

["Knowledge Management and E-Learning: the GetSmart Experience"](#), Byron Marshall, Yiwen Zhang, Hsinchun Chen, Ann Lally, Rao Shen, Edward Fox and Lillian Cassel, Presented at the Third Joint ACM/IEEE Conference on Digital Libraries (JCDL 2003), May, 2003, Houston, Texas

## Other Conference Publications

["Coplink center: social network analysis and identity deception detection for law enforcement and homeland security intelligence and security informatics: a crime data mining approach to developing border safe research"](#) Hsinchun Chen, Homa Atabakhsh, Jennifer Jie Xu, Alan Gang Wang, Byron Marshall, Siddharth Kaza, Lu Chunju Tseng, Shauna Eggers, Hemanth Gowda, Tim Petersen, and Chuck Violette, Proceedings of the 2005 national conference on Digital government research (dg.o2005) Atlanta, Georgia, USA, May 15-18, 2005

[Poster: "BorderSafe: cross-jurisdictional information sharing, analysis, and visualization"](#)

Hsinchun Chen, Homa Atabakhsh, Siddharth Kaza, Byron Marshall, Jennifer Xu, G. Alan Wang, Tim Petersen, and Chuck Violette, Proceedings of the 2005 national conference on Digital government research (dg.o2005) Atlanta, Georgia, USA, May 15-18, 2005

[Poster: "Visualization in Law Enforcement"](#)

Hsinchun Chen, Homa Atabakhsh, Chunju Tseng, University of Arizona, USA; Tim Petersen, Tucson Police Department, USA; Byron Marshall, Siddharth Kaza, Shauna Eggers, Ankit Shah, Hemanth Gowda, University of Arizona, USA, Conference on Human Factors in Computing Systems (CHI 2005), Portland, Oregon, USA, April 2-7, 2005

[Demonstration: "Cross-Jurisdictional Activity Networks to Support Criminal Investigations"](#)

Byron Marshall, Siddharth Kaza, Jennifer Xu, Homa Atabakhsh, Tim Petersen, Chuck Violette, and Hsinchun Chen, the 5th Annual Conference on Digital Government Research (dg.o2004), May 24-26, 2004, Seattle, Washington, USA

["Analyzing and Visualizing Criminal Network Dynamics: A Case Study"](#) Jennifer Xu,

Byron Marshall, Siddharth Kaza, and Hsinchun Chen, 2nd Symposium on Intelligence and Security Informatics, June 10-11 2004, Tucson, AZ

["Cross-Jurisdictional Criminal Activity Networks to Support Border and Transportation Security"](#)

Byron Marshall, Siddharth Kaza, Jennifer Xu, Homa Atabakhsh, Tim Petersen, Chuck Violette and Hsinchun Chen (2004), 7th Annual IEEE Conference on Intelligent Transportation Systems (ITSC 2004), October 3-6, 2004, Washington, D.C., USA

## Industry Experience

1988 - 2001 Dunavant of California Fresno, CA Programmer/Analyst

- Spearheaded the development of many computer-based business systems involving:
- Hundreds of users in several states using & computers from hand-held through mainframes.
- Many programming environments including COBOL, Visual Basic, VB Script, DOS batch files, HTML, Active server pages, Cold Fusion, and SQL. Included extensive work managing distributed data with various data communications protocols.
- Complete solutions: Network installation, hardware maintenance, operating system upgrades, comprehensive backup solutions, user training, bug fixes, and continuous program upgrades.
- Various related technologies: EDI, XML, SQL, bar coding, FTP and other telecommunication protocols, digital certificates, encryption, firewalls, distributed processing, automated interfaces with satellite-based market information.

## Professional Memberships

ISACA - Information Systems Audit and Control Association, International. (October 2005).

IEEE - Institute of Electrical and Electronics Engineers, Member, International. (January 2005).

AIS - Association for Information Systems, International. (October 2004).

ACM - Association for Computing Machinery. (October 2001).