

Rahul Singh, Ph. D.

Associate Professor
Department of Information Systems and Operations Management
Bryan School of Business and Economics
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Professional Experience

2008 – Present	Associate Professor (with Tenure) Department of Information Systems and Supply Chain Management Bryan School of Business and Economics The University of North Carolina at Greensboro
2001 - 2007	Assistant Professor Department of Information Systems and Operations Management Bryan School of Business and Economics The University of North Carolina at Greensboro
1998 – 2001	Assistant Professor of Information Systems School of Business Administration, The University of San Diego
1997 –1998	Visiting Assistant Professor Department of Information Systems, School of Business, Virginia Commonwealth University.
1994- August 1998	Graduate Research/Teaching Assistant, Department of Information Systems School of Business, Virginia Commonwealth University.

Education

1999	Ph.D. in Business, School of Business, Virginia Commonwealth University. Information Systems (minor: Computer Science). 1994-1999 Dissertation Title: <i>A model to integrate Data Mining and On-Line Analytical Processing for Intelligent Decision Making: with application to Real-Time Process Control.</i>
1992-1994	Graduate Coursework (MBA) in MIS and Computer Science, Bowling Green State University, Bowling Green, Ohio. (Transferred to Ph.D. Program at VCU in August 1994)
1991	Bachelor of Engineering, Birla Institute of Technology, Mesra (Ranchi), India, 1991

Research

Refereed Journal Articles:

1. Wall, J. and Singh, Rahul (2018). The Organization Man and the Innovator: Theoretical archetypes to inform behavioral information security research. *The DATA BASE for Advances in Information Systems*. Vol 49 Special Issue pp. 67-80
2. Babik, D., Singh, Rahul, Zhao, X., & Ford, E. W. (2017). What you think and what I think: Studying intersubjectivity in knowledge artifacts evaluation. *Information Systems Frontiers*, Vol 19 Iss 1.
3. Oakley, R and Singh, Rahul (2016). Examining ethical decision-making behavior in e-Learning systems: A Socio-technical analysis. *International Journal of Cyber Ethics in Education*, Vol 4 Iss 2. pp. 41
4. Khanlarian, C. J. and Singh, Rahul (2014) An Exploratory Study of the Online Learning Environment. *Issues in Accounting Education*, Vol. 29, No. 1, pp. 117-147.
5. Heath, D., Singh, Rahul, Ganesh J. and Taube, L. (2013), Thought Leadership Strategy through Strategic Engagement in Social Media. *Management Information Systems Quarterly Executive*, 12 (2). 77-92.
6. Babu, R and Singh, Rahul (2013) , Enhancing Learning Management Systems Utility for Blind Students: A Task-oriented, User-Centered, Multi-Method Evaluation Technique, *Journal of Information Technology Education: Research* Vol. 12. 1 – 32.
7. Dai, Hua, Wen, K. W., Singh Rahul and Iyer, L (2012) An integrative framework mobile commerce consumers' privacy concerns and willingness to use: an empirical study, *International Journal of Electronic Business* 10 (1), 79-100.
8. Dai, H, Singh Rahul and Iyer, L (2012) An investigation of Consumer's Security and Privacy Perceptions in Mobile Commerce. *Journal of Information Systems Security*, Vol 9 Issue 2, 3-25.
9. Thambusamy, R. and Singh, Rahul (2011). Design of a Secure Electronic Medical Records Process using Secure Activity Resource Coordination., *Journal of Information Systems Security*, Vol 7 Issue 2. 49-77
10. Nath, A. & Singh, Rahul (2010). Evaluating the Performance and Quality of Web Services in Electronic Marketplaces. *E-Services Journal*, 7 (1), 43-59.
11. Babu, R., Singh, Rahul, & Ganesh, J. (2010). Understanding blind Users' Web Accessibility and Usability problems. *AIS Transactions of Human Computer Interaction*, 2 (3), 73-94.
12. Midha, V., Palvia, P., Singh, Rahul, & Khetri, N. (2010). Improving Open Source Software Maintenance. *Journal of Computer Information Systems*, 50 (3), 81-90.
13. Khanlarian, C., Shough, E., & Singh, Rahul (2010). Student perceptions of web-based homework software: A longitudinal examination. *Advances in Accounting Education: Teaching and Curriculum Innovations*, 11, 197-220.
14. D'Auberterre, F., Singh, Rahul, & Iyer, L. (2009). Secure activity resource coordination: empirical evidence of enhanced security awareness in designing secure business processes. *European Journal of Information Systems*, 17 (5), 528-543.

15. D'Aubetere, F., Iyer, L. S., Ehrhardt, R., & Singh, Rahul. (2009). Semantic Knowledge Representation for discovery and contract formation eBusiness Processes in a B2B eMarketplace. *International Journal of Intelligent Information Technologies*. Vol 5 Iss 4, 16-40
16. D'Aubeterre, F., Singh, Rahul, and Iyer, L. (2008). A Semantic Approach to Secure Collaborative Inter-Organizational eBusiness Processes. *Journal of the Association for Information Systems (JAIS)* Vol. 9, Issue 3/4, pp. 231-266. 2008

Before-Tenure:

17. Singh, Rahul (2007) An Intelligent Knowledge-based Multi-Agent Decision Support Architecture (IKMDSA): Using Agents and XML for Knowledge Representation and Exchange. *International Journal of Intelligent Information Technologies*, 3 (1), 2007 37-59.
*Note: This article was in my tenure packet as forthcoming.
18. Singh, Rahul and Salam, A. F. (2006) Semantic Information Assurance for Secure Distributed Knowledge Management: A Business Process Perspective. *IEEE Transactions on Systems, Man and Cybernetics*, 36 (3), May 2006 472-486.
19. Iyer, L. S., Singh, Rahul, Salam, A. F., and D'Aubeterre, F. (2006) Knowledge Management for Government to Government Process Coordination. *Electronic Government, An International Journal*, 3 (1), 2006 18-35.
20. Singh, Rahul, Iyer, L. S., and Salam, A. F., (2005) "The Semantic eBusiness Vision", *Communications of the ACM*, December 2005 Vol. 48, No. 12
21. Thomas, M., Redmond, R. T., Yoon, V., and Singh, Rahul (2005) "A semantic approach to monitoring business process performance", *Communications of the ACM*, December 2005 Vol. 48, No. 12
22. Singh, Rahul, Salam, A. F., and Iyer, L. S., (2005) "Agents in eSupply Chains", *Communications of the ACM*, June 2005 Vol. 48 No. 6
23. Iyer, L. S., Singh, Rahul, and Salam, A.F. (2005) "Collaboration and Knowledge Management in B2B eMarketplaces", *Information Systems Journal*, Summer 2005 Vol. 22, no. 3. pp. 37-49
24. Salam, A. F., Iyer, L., Palvia, P., and Singh, Rahul (2005) "Trust, Technology Usage and Exchange Relationship in E-Commerce: A Comprehensive Framework" *Communications of the ACM*, Vol. 48, No. 2, 2005.
25. Singh, Rahul, Iyer, L. S., Salam, A. F., (2005) "Semantic eBusiness", *International Journal on Semantic Web and Information Systems.*, Vol. 1., No. 1, 2005. pp. 19-35
26. Yoon, V., Broome, B. Singh, Rahul, and Guimaraes, T., (2005) "Why Agents: A More effective means of managing knowledge", *Information Resource Management Journal* Apr-Jun 2005. Vol. 18, Issue 2 pp. 94-113
27. Singh, Rahul, L.S. Iyer, and A.F. Salam, (2003) "Services for Knowledge Management In eMarketplaces", *e-Service Journal*. Vol. 3, Number 1 (Fall 2003) pp. 32-52.
28. Singh, Rahul, Yoon, V., & Redmond, R. T., (2002) "Integrating Data Mining and On-line Analytical Processing for Intelligent Decision Systems", *Journal of Decision Systems*, Vol. 11, No. 2, July 2002. pp. 185-204
29. Singh, Rahul, Schneider, G. P., and Bruton C. M., (2002) "Key elements of Business Process Reengineering and Enterprise Resource Planning Software Implementation: A Comparison" *Academy of Information and Management Science Journal*. Vol. 5, No.1, 2002, pp. 57-64

30. Singh, Rahul and Gilbreath, (2002) "A Real-Time Information System for Multivariate statistical process control", *International Journal of Production Economics*, Vol. 75. 2002. pp 161-172
31. Weistroffer, H. R., Wooldridge, B., Singh, Rahul, (1999) A Multi-Criteria approach to Local Tax Planning, *Socio-Economic Planning Sciences*. Vol. 33. 1999. pp. 301-315.

Refereed Journal Articles under review:

Dissanayake, I., Nerur, S., Singh, R. and Lee, Y. Healthcare Crowdsourcing: Harnessing the “wisdom of the crowd” to solve medical mysteries. Revised and Re-submitted for third round review with minor changes to *Journal of the Association for Information Systems*.

Journal Articles in preparation:

Mirzaei, T., Singh, Rahul. Menon, N., and Kohli, R. Causal mechanism to explain the Impact of Health IT on care quality
 Expected Submission Date: Fall 2018
 Target: *Management Information Systems Quarterly*. (Analysis and write-up in progress)

Mirzaei, T., Singh, Rahul, Kohli, R. Coordination Can Save Lives: Evidence from a Heart Failure patient field study.
 Expected Submission: Spring 2019
 Target: *Production and Operations Management Journal*. (Re-development of analysis in progress)

Mirzaei, T., Singh, Rahul, Kohli, R. Targeted care of Complex Heart Failure Patients: Addressing Heterogeneity with Predictive Analytics
 Expected Submission Date: Spring 2019
 Target: *Journal of American Medical Informatics Association* (Analysis complete. Study write-up in progress)

Singh, Rahul, Ghosh V., Silva J.C. and Dhillon, G. Investigating the Collaborative Competitive paradox in Health Information Sharing within and across health systems.
 Expected Submission Date: Spring 2019
 Target: *Information System Research* (Analysis in progress)

Recent and Selected Refereed Conference Proceedings:

From 50+ refereed conference proceedings ... complete list available on request

1. Mirzaei, T., Singh Rahul, and Kohli, R. (2017). Coordinated Information Flow Improves Chronic Heart Failure Patient care, *Conference on Health IT and Analytics (CHITA)*, Washington DC.
2. Singh, R., Mirzaei, T., Bradberry, C., Bensimhon, D., Cosgrove, A., Curran, L., (2015). Streamlining Turbulence of Patient Flow through Managed Health Care: A natural experiment and field study, *Patient Centric Health Care Management in the Age of Analytics Special Issue of Production and Operation Management (POMS) and Conference*, Indiana University, Bloomington, IN.

3. Mirzaei, T., Singh, R., Pahatkar, K. Loyd, K., (2015) The Empowered Patient: The use of Social Networks, Social Media and Technology to Activate Patients for Better Health Outcomes and Lower Healthcare Costs, *North Carolina Healthcare Information and Communication Alliance (NCHICA) Annual Conference*, Pinehurst, NC.
4. Heath, D., Babu, R., Singh, R. and Sahasrabudhe, S. (2015), "Changing Employers Cognition: Personal Mobile Technology as a Workplace Enabler for Blind and Visually Impaired Workers", Proceedings of the *International Conference on Information Systems*.
5. Babik, D., Qian, R., Singh, R., and Ford, E., (2014) "Examining Intersubjectivity in Social Knowledge Artifacts", Proceedings of the *Americas Conference on Information Systems (AMCIS)*.
6. Singh, R., Wall, J., and Dhillon, G., (2014) "Archetypes to inform Information Security: The Organization Man and the Innovator", Proceedings of the *Americas Conference on Information Systems (AMCIS)*.
7. Heath, D., Singh, R. and Ganesh, J. (2013), "Exploring Strategic Organizational Engagement in Social Media: A Revelatory Case", Proceedings of the *International Conference on Information Systems*.
8. Heath, D. and Singh, R., (2013), "Social Media at SocioSystems Inc.: A Socio-technical Systems Analysis of Strategic Action", Proceedings of the 46th *Hawaii International Conference on Systems Science (HICSS)*
9. Heath, D. and Singh, R., (2013), "Approaching Strategic Misalignment from an Organizational View of Business Processes", Proceedings of the 46th *Hawaii International Conference on Systems Science (HICSS)*
10. Heath, D., Singh R. and Ganesh, J. (2013), "Organizational Engagement in Social Media to Motivate Strategic Directed Action: A Revelatory Case", Proceedings of the *Nineteenth Americas Conference on Information Systems (AMCIS)*
11. Babu, R. and Singh, R. (2013) "Accessibility and Usability of Social Media: Convergence between Blind Users and Design Standards", Proceedings of the *Nineteenth Americas Conference on Information Systems (AMCIS)*
12. Khanlarian, C. & Singh, R. (2011) "Frustration in Online Learning", *American Accounting Association Annual Meeting*, Aug. 3 – 7, 2013, Anaheim, CA
13. Khanlarian, C. and Singh, R. (2013). "Microfinancial eMarketplaces" presented at the AAA Southeast Regional Conference, April 4-5, Nashville, TN.
14. Heath, D. and Singh, R., (2012), "Strategic Social Media Engagement", Proceedings of the *Eighteenth Americas Conference on Information Systems (AMCIS)*
15. Khanlarian, C. & Singh, R. (2011). An examination of Lender Motives in MicroFinancial eMarketplaces. *American Accounting Association Annual Meeting*.
16. Heath, D., Wallace, S., Nemat, H., & Singh, R. (2011). Structural Stability and Virtual Team Performance. *AMCIS*.
17. Oakley, R. & Singh, R. (2011). Ethical Decision-Making in e-Learning: A Socio-technical Analysis of Informal Security Controls. *AMCIS*.
18. Wallace, S., Ganesh, J., Kolhatkar, A., & Singh, R. (2011). Developing product innovation using Web 2.0: A field study. *AMCIS*.

19. Oakley, R. & Singh, R. (2011). Examining Ethical Decision Making Behavior in e-Learning Systems. *AMCIS*.
20. Heath, D. & Singh, R. (2011). Approaching Strategic Misalignment from Organizational View of Business Processes. *AMCIS*.
21. Nath, A., Iyer, L., & Singh, R. (2011). Uses of Web 2.0 for Knowledge Management in Organizations: Multiple Case Studies. *AMCIS*.
22. Thambusamy, R. & Singh, R. (2010). Design of a Secure Electronic Medical Records (EMR) Process Using Secure Activity Resource Coordination (SARC). *Annual Security Conference*.
23. Babu, R., Singh, R., Ganesh, J., & Kolhatkar, A. (2010). Evaluating Web Accessibility & Usability for Non-Visual Interaction: A Cognitive Multi-method Approach. *ISOneWorld Conference*.
24. Khanlarian, C., Shough, E., & Singh, R. (2010). A Longitudinal Study of Web-Based Homework Software. *ISOneWorld Conference*.
25. Khanlarian, C. & Singh, R. (in press, 2010). Microfinancial e-Marketplaces. *ISOneWorld Conference*, Information Institute.
26. Babu, R. & Singh, R. (2010). Beyond Accessibility: A Cognitive Approach to Usability of Information & Communications Technology for the Visually Impaired. *6th Nordic Conference on Human-Computer Interaction*, August 6th-8th, Stavanger, Norway.
27. Thambusamy, R. & Singh, R. (2010). Towards a Methodology to Design Secure Business Process. *Annual Security Conference*.
28. Nath, A. & Singh, R. (2009). Evaluating the Performance and Quality of Web Services in Electronic Marketplace. *Americas Conference on Information Systems (AMCIS)*.
29. Babu, R., Singh, R., Ganesh, J. Thorvaldsen, K. and Fuglerud, K. S. (2010). Accessibility and Usability Problems in Web-Enhanced Instruction: Experience of Blind Students in Taking Online Assessment. *25th International Technology & Persons with Disabilities Conference*, March 24th-27th, San Diego, CA, USA.
30. Babu, R. & Singh, R. (2009). Evaluation of Web Accessibility and Usability from Blind User's Perspective: The Context of Online Assessment. *Americas Conference on Information Systems (AMCIS)*.
31. Nath, A., Singh, R., & Iyer, L. (2009). Web 2.0: Capabilities, Business Value and Strategic Practice. *Americas Conference on Information Systems (AMCIS)*.
32. Singh, R. & Babu, R. (2009). Understanding Blind Users' Accessibility and Usability Problems in an Online Task. *Americas Conference on Information Systems (AMCIS)*.
33. D'Aubeterre, F., Singh, R., Iyer, L. S., & Ehrhardt, R. (2008). Secure Semantic Activity Resource Coordination. *3rd International Conference on Design Science Research in Information Systems and Technology*. **Best Paper Award**
34. Babu, R., Singh, R., Iyer, L. S., & Midha, V. (2007). Differences in Factors Affecting Academic Success for Disabled Individuals in Technology-Mediated Learning Environments. *Americas Conference on Information Systems (AMCIS)*.
35. Dai, H., Singh, R., & Iyer, L. S. (2007). Intention to Use Mobile Commerce: A Demographic Analysis of the Chinese Market. *Americas Conference on Information Systems (AMCIS)*.

36. Dai, H., Iyer, L., & Singh, R. (2007). An Investigation of Consumer's Security and Privacy Perceptions in Mobile Commerce. *Americas Conference on Information Systems (AMCIS)*.
37. D'Aubeterre, F., Singh, R., Iyer, L. S., & Ehrhardt, R. (2007). Secure Integration of eBusiness Processes in the Extended-Enterprise. *Americas Conference on Information Systems (AMCIS)*.
38. Singh, R., D'Aubeterre, F., Iyer, L. S., & Ehrhardt, R. (2007). Secure Semantic eBusiness Processes: A Design Theoretic Approach to Secure Semantic Systems. *2nd International Conference on Design Science Research in Information Systems and Technology*. **Runner up for the Best Paper Award**
39. D'Aubeterre, F., Singh, R., & Iyer, L. S. (2007). Designing Secure Business Processes through Secure Activity Resource Coordination (SARC). *International Conference on Information Systems (ICIS)*.
40. D'Aubeterre, F., Singh, R., Iyer, L., & Salam, A. F. (2006). A Design Theory for Secure Semantic eBusiness Processes. *Center for Advancing Business through Information Technology Symposium*. Arizona State University
41. Singh, R., Redmond, R. T., & Yoon, V. (2006). Design Artifact to support Knowledge-Driven Predictive and Explanatory Decision Analytics. *International Conference on Information Systems (ICIS)*.
42. Singh, R., Yoon, Y., Redmond, R.T., and Minor, Elliot D., (1998). Using Data Mining and OLAP in Real Time Process Control. Proceedings of the *National Decision Sciences Institute*, November 1998.
43. Singh, R. and Wynne, A. J., (1997). Applying Business Process Reengineering Principles to Educational Institutions. Proceedings of the *Southeast Decision Sciences Institute*, February 21 - 23, 1997.
44. Weistroffer, H. Roland, Wooldridge, Blue. and Singh, R., (1996). Tax Revenue Planning: A multiple criteria decision making approach", *International Conference on MCDM*, Stuttgart, Germany.
45. Singh, R. and Gilbreath, Glenn H., (1996) A Process Monitoring Tool Based on Multivariate Analysis, Proceedings of the *Southeast Decision Sciences Institute*.

Patents:

Heath, D.R., Singh, Rahul (2013). A Socio-Semiotically Organized Nomological Ontology of Topics, Associated Contexts, and Web Content, US Patent Application No. 13/791,483, filed.

Refereed Book Chapters:

- 1 Singh, Rahul. A Multi-Agent Decision Support Architecture for Knowledge Representation and Exchange (2009). In M. Gordon Hunter (Editor) *Selected Readings in Strategic Information Systems*, Information Science Reference (IGI Global) Chapter XXIV, pp. 372-389.
- 2 Leary, D. T., Salam, A., & Singh, Rahul (2006) "Dynamic Matching of Supply and Demand in M-Commerce Services Marketplace Using Intelligent Agents and Semantic Technology". In B. Unhelkar (Ed.) *Handbook of Research in Mobile Business: Technical, Methodological and Social Perspectives*. Idea Group Publishing.
- 3 A.F. Salam, L.S. Iyer, and Singh, Rahul, (2004) "An Intelligent Knowledge-based Multi-Agent Architecture for Collaboration in B2B e-Marketplaces" A chapter submission for *Business Intelligence in the Digital Economy: Opportunities, Limitations and Risks*, Raisinghani, M. (Editor)

- 4 Singh, Rahul, Yoon, Y., and Redmond, R.T. (2004), " An Intelligent Support System integrating Data Mining and On-Line Analytical Processing" Book Chapter in *Organizational Data Mining: Leveraging Enterprise Data Resources for Optimal Performance*, Nemati, H. and Barko, C. (Editors) IRM Press, Hershey PA., pp. 141-150.
- 5 Singh, Rahul and Gill, Mark A. (2002), "Using Intelligent Agents for Trust in Electronic Commerce", *Intelligent Support Systems Technology: Knowledge Management*, edited by V. Sugumaran, IRM Press, Hershey PA., 2002, pp. 98-109.
- 6 Weistroffer, H. R., Wooldridge, B., Singh, Rahul (1997), "Local Tax Planning with AHP and Delphi". In G. Fandel, T. Gal, and T. Hanne (editors): *Multiple Criteria Decision Making, Lecture Notes in Economic and Mathematical Systems*, Vol. 448. Springer-Verlag.

Grants and Externally Funded Research

Grants funded:

1. Singh, Rahul, The Mind of the Blind on the Web (\$100,807.00), *National Science Foundation (NSF)*. 2009-2011. **Funded**
2. 2013: Singh, Rahul and Heath, Donald, Strategic IT Master Plan, *City of Greensboro Police Department*, (\$25,000) 2013. Funded.
3. 2011: Singh, Rahul, Babu, R., Delaney, P., Stone, E., Xu, J., Ms Shira Hedgepeth of Winston Salem State University, Triad Research Initiative to Empower the Visually Impaired for Information Systems (\$17,000.00), Wake Forest University. *WFU TRIAD Inter-University Project Planning (TIPP)* Funded
4. Singh, Rahul, Dean's Research Scholars Program (\$3,000). 2015. Funded
5. Singh, Rahul, Dean's Research Scholars Program (\$3,000). 2013. Funded
6. Singh, Rahul, Dean's Research Scholars Program (\$3,000). 2011. Funded
7. Singh, Rahul, Dean's Research Scholars Program (\$3,000). 2009. Funded
8. Singh, Rahul, Dean's Research Scholars Program (\$5,000). 2008. Funded
9. Singh, Rahul, Iyer, L.S., and Salam, A.F. "Intelligent Knowledge Exchange Architecture for the Digital Economy (IKEADE)" *External Proposal Development Incentive Program (EPDIP), The University of North Carolina, Greensboro*. Amount \$50,000. Awarded: April 2003. . Funded
10. Faculty Advisor for multiple competitive summer research grants for doctoral students - \$5000 each, 2006-2011 Funded.
11. Singh, Rahul and Iyer L. S. "Syngenta Internship Program with ISOM Department" Continuing Five-Year grant from Syngenta Inc. Amount approx \$10,000 per semester through December 2008, Awarded: August 2003. Renewed in 2012.
12. New Faculty Development Grant, The University of North Carolina at Greensboro, 2001
13. New Faculty Development Grant, University of San Diego, 1999

Grants Not funded:

1. 2013: Singh, Rahul, Delaney, P., and Babu, R. “Accessibility and Usability of Consumer Health Information Technology: Bridging the Chasm between Designers and Blind and Visually Impaired Users.” (\$198,000) submitted to *Agency for Healthcare Research and Quality (AHRQ) R21*, Under Preparation for re-submission.
2. 2011; 2013: Singh, Rahul, Babu, R., & Delaney, P., Understanding User Needs and Context to Inform Consumer Health Information Technology (IT) Design (R01), *GOV-Agency for Health Care Research and Quality (AHRQ)* submitted with University of Wisconsin Milwaukee, The American Federation for the Blind, and Infosys Ltd as sub-contractors.
3. 2012: Babu R., Singh, Rahul and Delaney, P., “2012: Singh, Rahul, Delaney, P., and Babu, R. “Accessibility and Usability of Consumer Health Information Technology: Bridging the Chasm between Designers and Blind and Visually Impaired Users.” (\$ 441,000) *National Science Foundation*, submitted with University of Wisconsin Milwaukee. Not Funded.
4. 2011: Babu R., Singh, Rahul and Delaney, P., “2012: Singh, Rahul, Delaney, P., and Babu, R. “Accessibility and Usability of Consumer Health Information Technology: Bridging the Chasm between Designers and Blind and Visually Impaired Users.” (\$ 435,000) *National Science Foundation*, submitted with University of Wisconsin Milwaukee. Not Funded.
5. 2010: Ford, E., Iyer, L. S., & Singh, Rahul, Crossing the digital divide and quality chasm: Is the Patient Portal the First Passage? Proposal submitted to The Agency for Healthcare Quality and Re, GOV-Agency for Health Care Research and Quality (AHRQ). Ford, E. W. (P.I.), Iyer, L. S. Singh, Rahul, Fried, R. and Raymer, S. (January 25, 2010) Crossing the digital divide and quality chasm: Is the Patient Portal the First Passage? Proposal submitted to *The Agency for Healthcare Quality and Research (PAR08-270 Utilizing Health Information Technology (IT) to Improve Health Care Quality (R18) February 2008. Requested Amount: \$785,393.*
6. 2010: Singh, Rahul, Usability and Accessibility of Web 2.0, *Norwegian Research Council VERDIKT Program*. With GymBook AUF, Norwegian Computing Center and Infosys Private Ltd
7. 2008: Singh, Rahul, Babu, R., & van Broekhuizen, L., Impediments to Academic and Functional Outcomes of Blind & Visually Impaired Students in Web-Enhanced Instruction Environments, *Department of Education - IES*.

Doctoral Mentorship

Doctoral Dissertation Committees:

1. Chair Doctoral Dissertation Committee for Dr. Shrirang Sahasrabudhe Department of Information Systems and Supply Chain Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “Towards Improved Usability of Mobile Devices for Blind and Visually Impaired Students”. *Accepted position as Senior Research Scientist at Educational Testing Service (ETS), Summer 2018*

2. Chair Doctoral Dissertation Committee for Dr. Tala Mirzaei, Department of Information Systems and Supply Chain Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “Studying Quality and Cost of Care for Heart Failure Patients with Health Analytics”.
Accepted position as tenure-track Assistant Professor at Florida International University, Fall 2016
3. Chair Doctoral Dissertation Committee for Dr. Caleb Z Bradberry, Department of Information Systems and Supply Chain Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “Expanding and Improving Health Analytics Techniques for Heart Failure Patients”.
Accepted position as tenure-track Assistant Professor at Radford University, Virginia, Fall 2016
4. Chair Doctoral Dissertation Committee for Dr. Dmytro Babik, Department of Information Systems and Supply Chain Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “Investigating Intersubjectivity in Peer Review Based, Technology Enabled Knowledge Creation and Refinement Social Systems”.
Accepted position as tenure-track Assistant Professor at James Madison University, Virginia, Fall 2015
5. Chair Doctoral Dissertation Committee for Dr. Donald R Heath in Information Systems, Department of Information Systems and Supply Chain Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “Strategic Organizational Engagement in Social Media”.
Accepted position as tenure-track Assistant Professor at The University of Wisconsin, OshKosh, Fall 2014
6. Co-Chair Doctoral Dissertation Committee for Mr. Anupam Nath, Department of Information Systems and Operations Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “Using Web 2.0 tools for Knowledge Management in Organizations”.
Accepted position as tenure-track Assistant Professor at Elizabeth City State University. Fall 2013
7. Chair Doctoral Dissertation Committee for Mr. Rakesh Babu, Doctoral Candidate in Department of Information Systems and Operations Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “Accessibility and Usability Challenges for Blind and Visually Impaired Students in On-Line Learning Environments”.
Accepted position as tenure-track Assistant Professor at The University of Wisconsin Milwaukee, Fall 2011.
8. Chair Doctoral Dissertation Committee for Dr. Cynthia Khanlarian, PhD in Information Systems, Department of Information Systems and Operations Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “A longitudinal study of Web-based Homework Software”.
Accepted position as tenure-track Assistant Professor at Concord University. Fall 2010
9. Co-Chair Doctoral Dissertation Committee for Dr. Fergle D’Auberterre, Department of Information Systems and Operations Management in Bryan School of Business Administration and Economics, The University of North Carolina at Greensboro. “A Design Theory for Secure Semantic eBusiness Processes”.
Offered position as tenure-track Assistant Professor at Michigan State University, Fall 2008.
10. Member, Doctoral Dissertation Committee for Dr. Vishal Midha, Doctoral Candidate in Department of Information Systems and Operations Management in Bryan School of Business

Administration and Economics, The University of North Carolina at Greensboro. “On the Success of Open Source Software Projects”
Accepted position as tenure-track Assistant Professor at The University of Texas–Pan American, Fall 2007

Positions and Awards

1. Associate Professor of Information Systems, Bryan School of Business and Economics, The University of North Carolina at Greensboro, 2008- present
 2. Assistant Professor of Information Systems, Bryan School of Business and Economics, The University of North Carolina at Greensboro, 2001- 2008
 3. Assistant Professor of Information Systems, School of Business University of San Diego, 1998 - 2001.
 4. Dean’s Scholar. School of Business, Virginia Commonwealth University. 1999-2000.
 5. Instructor, Department of Information Systems, School Of Business, Virginia Commonwealth University. 1997-1998
 6. Non-Service Fellowship Award, including full-tuition support and stipend. School of Graduate Studies, Virginia Commonwealth University. 1996-1997
 7. Graduate Assistantship, Department of Information Systems, School Of Business, Virginia Commonwealth University. 1994-1995 and 1995-1996.
 8. Dean’s List. School of Business, Bowling Green State University. 1993.
 9. Graduate Assistantship, School of Business, Bowling Green State University, Bowling Green, Ohio. 1992-1993 and 1993-1994.
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Teaching

Doctoral Seminars:

Doctoral Seminar: Introduction to Research and Frameworks in Information Systems:

Introduces students to information systems research using top tier journal articles. Students will develop an understanding of information systems research in and prepare for research development in Information Systems

Doctoral Seminar in Current and Emerging Information Technologies: Research related to current and emerging information technologies in organizations. Topics include communications and network technologies, service-oriented architecture, workflow systems, semantic web technologies and virtual world environments

Doctoral Seminar in Behavioral Research in IS: In-depth study of behavioral issues related to information systems research including the influence and treatment of individual, psychological and social issues in the study of information systems in society and organizations with particular focus on Human Computer Interaction.

Doctoral Seminar in Information Security and Assurance Research: In-depth study of the evolving research in the technical, managerial and organizational issues related to information systems security, evolving systems security and information assurance models, information assurance and security metrics, the analysis of process and technology related to systems security.

Doctoral Seminar in Systems Development: Examination of research on Software Engineering, Systems Development Methodologies, Systems Design Principles and Methodologies, Software Testing and Software Quality. Study of the Impact of Software Development Principles and Practice on Organizational Structure and Business Strategy.

Undergraduate and Graduate Courses:

Introductory and Advanced courses in Information Systems for MSITM Students, MBA students, MS in eCommerce students, post-graduate certificate IS students and undergraduate Business and Information Systems students.

Principles of Health Informatics: Study the clinical, technical and business issues associated with selection, deployment, and use of health informatics in clinical, research and administrative arenas. Current best practices and future advances are examined. *Graduate Course*

Managing Costs and Quality of Care with Health Informatics: Current and potential impact of health informatics on clinical and administrative measures for various patient care processes. Emphasis on how health informatics can improve patient care across the care continuum. *Graduate Course*

Legal, Ethical, and Regulatory Issues in Health Informatics: The impact of legal, social and ethical issues in health informatics for health care delivery. Emphasis placed on ethical decision-making and the importance of mitigating liability through various risk-management strategies. *Graduate Course*

Capstone Project in Applied Health Informatics: Students will apply their knowledge and skills in data acquisition, project management, data presentation, and risk management to critically analyze and solve problems they might realistically encounter in health informatics. *Graduate Course*

Projects in Business Analytics: Capstone experience for graduate students in Business Analytics integrating a broad knowledge of business analytics tools, methods and strategies by undertaking hands-on projects with realistic data to develop analytics solutions for practical problems. *Graduate Course.*

Principles of Predictive Analytics: Business Analytics is an interactive process of analyzing and exploring enterprise data to find valuable insights that can be exploited for competitive advantage. This course introduces business analytics as a tool to gain competitive advantage and provides practical implementation details using several real-life cases. Specifically, the course shows how to discover subtle patterns and associations from business data and develop and deploy predictive, clustering, and market basket models to optimize decision-making throughout organization. Managerial and technical issues in development and deployment of business analytics are discussed. *Graduate Course*

Visualizing and Interpreting Analytics: Data are analyzed to answer questions. Students are exposed to concepts and techniques to understand analytics results and appropriately infer relationships to answer questions and visualize results using contemporary techniques. *Graduate Course*

Projects in Business Analytics: Capstone experience for graduate students in Business Analytics integrating a broad knowledge of business analytics tools, methods and strategies by undertaking

hands-on projects with realistic data to develop analytics solutions for practical problems.
Graduate Course

Information Systems Security and Information Assurance: Study of technical and business issues in information systems security, systems security models, analysis of process and technology in systems security and security policies leading to information assurance.
Undergraduate Course and Graduate Courses.

Systems Analysis and Design The design and development of Information Systems using Object-Oriented techniques and industry standard practices in structured systems design and Unified Modeling Language (UML). Courses include real-world systems development experience. *Undergraduate Course and Graduate Courses.*

Structured and Object-Oriented Programming: Introduction to programming fundamentals such as switching and looping logic, functions, arrays, strings and pointers. Introduction to classes and object-oriented techniques. *Class taught using Java, C++, VB.NET and Ada.*
Graduate and Undergraduate

Advanced Programming and Systems Design Techniques: Object-Oriented Programming with including classes, inheritance, polymorphism, data structures and templates. *Class taught using Java, VB.NET, C++ and Ada.* *Graduate and Undergraduate*

Data Communications and Distributed Data Processing: Concepts of data communications in local and wide area networks. Analysis of business environments to develop enterprise network solutions. Exploration of new advances in data communications technologies. *Graduate and Undergraduate*

Business Computer Networks: Application of networking technologies in real world environments. Emphasis on implementation of popular networking systems including Novell NetWare, Windows NT, Windows 2000, Linux/Unix systems in a hands-on/project based lab environment. *Graduate and Undergraduate*

Information Systems Design and Development: Introduction to the design and development of Information Systems using Object-Oriented and Web-Based development techniques. Courses include real-world systems development experience.
Class taught using Java, VB.Net, JavaScript, ASP. *Graduate and Undergraduate*

Decision Support Systems and Intelligent Systems: Principles of DSS and Intelligent Systems with focus on use for managerial decision-making. Topics include a study of the foundations of computerized support for decision problems, decision support systems, collaborative systems, expert systems and advances in intelligent support to decision making. *MBA and MS in eCommerce Elective*

Computer Hardware and Software: Basic Concepts of logic design, computer architecture and operating systems for information systems students. *Undergraduate*

Introduction to Information Systems: Concepts of information systems technology and their application in business, with projects in microcomputer and Internet applications. *Undergraduate*

Computer Literacy: Variety of introductory level classes emphasizing basic micro-computer skills including windows, word processing, spreadsheets, PowerPoint presentation skills, web page design and use of the Internet. *Undergraduate Classes taught using current Microsoft Office suite.*

Service Activities

Professional Service:

Editor

1. Editor, Journal of Information Science and Technology (JIST) 2009-2012
2. Guest Editor of Special Section on Semantic eBusiness, *Communications of the ACM*, 48 (12) December 2005.

Editorial Review Board Membership:

1. International Journal on Semantic Web and Information Systems
2. International Journal of Intelligent Information Technologies
3. Journal of Information Theory, Technology and Application.

Journal Review:

1. European Journal of Information Systems
2. Information Systems Frontiers
3. IEEE Transactions on Systems Man and Cybernetics – A
4. Communications of the Association for Computing Machinery.
5. Decision Support Systems
6. International Journal for Intelligent Information Technologies
7. Computers and Education.
8. Journal of Decision Systems
9. Journal of Information Theory, Technology and Application.
10. Textile Management Institute Journal

Review for Academic Conferences:

1. International Conference on Information Systems, **2017 Received Best Reviewer Award**
2. Conference Chair 2008, Program Chair 2007-2012, Conference on Information Systems Technology and Management (CISTM)
3. Conference Program Chair 2010-2012, IS OneWorld Conference on Information Systems
4. Co-Chair, AMCIS Mini-track on Web 2.0 and Collaborative Value Creation 2011, 2012.
5. Co-Chair, AMCIS Mini-track on Semantic eBusiness, Americas Conference on Information Systems, 2004, 2005.
6. Hawaii International Conference on System Sciences
7. International Conference on Information Systems
8. Americas Conference on Information Systems., 1999 through 2011
9. National Decision Sciences Institute
10. Global Information Technology Management Conference
11. South East Decision Science Institute
12. Encyclopedia of Information Systems

University Service:

Leadership and Memberships in department, school and University level committees:

The University of North Carolina, Greensboro

1. Member, Curriculum Committee, *MS Program in Informatics and Analytics*, UNC Greensboro. Ad-Hoc committee assembled by Dean of Graduate School and Provost in 2017.

2. Member, Committee to develop specialization in *MS Informatics and Analytics* and *Graduate Certificate in Health Analytics*, Ad-Hoc committee assembled by Dean of Graduate School and Provost in 2017.
3. Chair, External Relations Committee, ISSCM Department 2013-Present
4. Chair (2014-2017) Member (2017- Present), Committee on Research, Bryan School of Business and Economics,.
5. Chair ISSCM Department Search Committee, Fall 2015.
6. Chair, Student Relations Committee, ISSCM Department, 2005-2008
7. Member, Undergraduate Curriculum committee, ISSCM department. 2002-2004
8. Member, Graduate Programs Committee, ISSCM department 2003-Present
9. ISSCM Department Intellectual Contributions Committee 2003-2010.
10. PhD Program Development Task Force 2001-2002

University of San Diego

1. School of Business Graduate Studies Committee.
2. School of Business Technology Committee
3. CIO Search Committee, appointment by the Dean of the School of Business Administration

Virginia Commonwealth University

1. Technology Committee. School of Business,
2. Promotion and Tenure Committee: Student Member, Department of Information Systems, School of Business,

Masters' Thesis and MS Directed Research Projects:

1. Electronic Commerce and Business Process Re-engineering – Master's Thesis for Daniel Grumelli, School of Business Administration, University of San Diego. 1999.
2. Wireless Application Protocol and its Applications - Directed research in Masters of Science in Electronic Commerce (MSEC) program. Student: Leila Worthy. School of Business Administration, University of San Diego. 1999.
3. An evolutionary study of the development of business models for mobile commerce - Directed research in Masters of Science in Electronic Commerce (MSEC) program. Student: David Burke. School of Business Administration, University of San Diego. 1999.

Program development:

Contributions towards the development of the following new programs

1. **PhD in Information Systems:** Worked on planning and development of proposal to develop PhD in Information Systems program for approval by The University of North Carolina System; and developed and co-developed multiple courses in the PhD program. Information Systems and Supply Chain Management Department, The Bryan School of Business and Economics, The University of North Carolina, Greensboro.
2. **MSITM – Masters of Science in Information Technology Management:** Re-design entire curriculum and individual courses in IS. Information Systems and Supply Chain Management Department, The Bryan School of Business and Economics, The University of North Carolina, Greensboro.

3. **MSEC – Masters of Science in Electronic Commerce:** A new Master's of Science Program in Electronic Commerce the School of Business Administration, University of San Diego.
4. **MBA Concentrations in Information Systems (IS) and Electronic Commerce (EC):** A new area of concentration in IS and a concentration in EC in the MBA program at the School of Business Administration, University of San Diego.
5. **Undergraduate minors in Electronic Commerce and Information Systems:** Contribution towards the development of new Undergraduate minors in EC and in IS at the School of Business Administration, University of San Diego.
6. **Undergraduate Concentrations in Information Systems and Electronic Commerce:** Contribution towards the development of new Undergraduate area of emphasis in EC and in IS for the BBA program at School of Business Administration, University of San Diego.

Curriculum Development:

1. *Doctoral Seminar in Behavioral Research in Information Systems* for doctoral program in Information Systems at The University of North Carolina, Greensboro.
2. *Doctoral Seminar in Current and Emerging Technologies* for doctoral program in Information Systems at The University of North Carolina, Greensboro.
3. *Doctoral Seminar on Research Frameworks in Information Systems* for doctoral program in Information Systems at The University of North Carolina, Greensboro.
4. *Doctoral Seminar in Information Systems Security* for doctoral program in Information Systems at The University of North Carolina, Greensboro.
5. *Doctoral Seminar in Systems Design and Software Engineering* for doctoral program in Information Systems at The University of North Carolina, Greensboro.
6. Graduate Course in Advanced Analytics for graduate program in Business Analytics at The University of North Carolina, Greensboro
7. Masters' Project in Advanced Analytics for graduate program in Business Analytics at The University of North Carolina, Greensboro
8. Graduate course in Advanced Object-Oriented Programming using Java at The University of North Carolina, Greensboro
9. Undergraduate Capstone course in Systems Design and Development at The University of North Carolina, Greensboro
10. Data Communications and Computer Networks: Data communications and Computer Networks courses emphasizing Internet Technologies and Hand-On projects at the School of Business Administration, University of San Diego. *Undergraduate and Graduate*
11. Information Systems Design and Development: Information Systems Development course emphasizing web-based systems development for Electronic Commerce. *Undergraduate and Graduate*
12. Decision Support Systems and Intelligent Systems: MBA Elective. School of Business, University of San Diego. *Graduate*
13. Introductory/Advanced C++ Programming: Development and teaching of a special team taught course for advanced high school students at Mills Godwin High School, Richmond, Virginia.

Independent Study:

Multiple independent study projects at UNCG and at the University of San Diego.

Course Topic Include:

Developing Analytics Solutions for Crime Analysis at Greensboro Police Department;
Identifying Analytics Capabilities in the 3 PL industry; Studying Capability Maturity and Strategic Alignment in Analytics;
Building a Seal of Approval for Business Intelligence – a healthcare example.

Developing a sample EC Store; Mining Web Site data for marketing strategy development (undergraduate honors thesis, University of San Diego).

Project conducted with support from Proflowers.com; Web Site design and Implementation; Database Administration; Internet Marketing Strategies, with internship at MP3.com

Related Professional Experience

Systems Development:

1. Strategic Planning and IS Strategy for Engineering and Inspections, City of Greensboro, 2016-Present.
2. Strategic Planning for Analytics. M33 Integrated. Greensboro, NC 2015
3. Strategic IT Planning, The City of Greensboro, Greensboro, NC. 2014.
4. Strategic Master IT Plan for the Greensboro Police Department at Greensboro, NC. 2013-14.
5. Developing Export Odyssey: Analytics for Export Competitiveness (Using Enterprise Java, MySQL, Java Server Pages and Java Server Faces) at The University of North Carolina at Greensboro, 2014.
6. Research Project on Multivariate Statistical Process Control Systems. Industry Funded Project including analysis, design and implementation in multiple phases using Matlab, Visual Basic and Access.
7. Research Project on the design and implementation of Real Time Multivariate Statistical Process Control System. Industry Funded Project including analysis, design and implementation of distributed system in multiple phases using Matlab, Microsoft Visual Basic, Microsoft Access and Microsoft Visual C++.
8. Design and Development of Multimedia Interactive Learning System to teach introductory programming students concepts in C++. System developed for research and classroom instruction purpose. Used in Department of Information systems, Virginia Commonwealth University.
9. Design and Development of Multiple Criteria Decision-Making tool for tax revenue planning. Research conducted with Richmond City Council, Richmond, VA.
10. Analysis and development of school evaluation system for Chesterfield County Public Schools, Chesterfield County, Virginia.

Networking, Security and Data Communications:

1. IT and Electronic Commerce Teaching Lab Development. Complete setup of teaching and advanced IT and EC projects lab environment. Lab support multiple PC and Client server

platforms including Win2000 platforms, Linux, Novell NetWare 5.1 and multiple development platforms including SQL Server, IIS, Oracle, Visual Studio at The University of San Diego.

2. Design and Implementation of campus wide network for College of Mount Saint Vincent, New York City, NY. Including implementation of Local Area Network and interface with routers and user training.
 3. Web Master and Web Systems Development Project Lead for School of Business Administration, USD. Development and Project Management of web site and web services for the School of Business Administration, USD on Win 2000 platform using SQL Server 7.0, IIS 5.0, perl, Exchange Server and ASP technologies. Training of computer support persons for management and maintenance of the development.
 4. Network and Security Administrator for Department of Information Systems, School Of Business, Virginia Commonwealth University. Operating Novell 4.1 and Windows NT 4.0.
 5. Linux Administrator, School of Business and Department of Information Systems at Virginia Commonwealth University.
 6. Web Master for School of Business and Department of Information Systems at Virginia Commonwealth University.
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References:

Available upon request.