

Aditya Johri

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Appointments

Assistant Professor , Virginia Polytechnic Institute and State University Department of Engineering Education, College of Engineering	August 2007 – Present
Affiliated Faculty Center for Human-Computer Interaction (CHCI) Department of Industrial and Systems Engineering Center for Innovated-based Manufacturing (CibM)	October 2007 – Present June 2009 – Present August 2010 – Present
Researcher in Residence, Microsoft Research Labs, Bangalore, India	September 2010
Visiting Researcher, Information Systems, University of Siegen, Germany	July – August 2006
Research Intern, FXPAL, Palo Alto, CA	June – August 2005
Systems Engineer, Wipro Systems, Bangalore, India	June 1998 – July 1999

Education

Ph. D., Learning Sciences and Technology Design, Stanford University Dissertation Chair: Pamela Hinds	July 2007
M.S., Information, Design, and Technology, Georgia Institute of Technology	August 2002
M. A., Mass Communication, University of Georgia	August 2000
B.S., Mechanical Engineering, Delhi College of Engineering, Delhi, India	June 1998

Honors and Awards

2011	Selected to participate in National Academy of Engineering's Frontiers of Engineering Education (FOEE) Symposium, Nov. 13-16, Irvine, CA.
2011	Selected to participated in competitive NSF-sponsored 2011 Summer Research Institute for the Science of Socio-Technical Systems (CSST'11), June 5-9, Captiva Island, FL.
2011	Best Note Award, ACM Conference on Computer Supported Cooperative Work (CSCW).
2010	National Science Foundation Early CAREER Award, 2010-2014.
2010	Virginia Tech College of Engineering Dean's Award for Outstanding New Assistant Professor.

- 2008 New Faculty Fellow Award, National Academy of Engineering, Frontiers in Engineering Conference, October 2008, Saratoga Springs, NY.
- 2008 Awarded best faculty paper proposal, "Cognition in the Rough" Professional Development Workshop, Academy of Management, (Out of 54 proposals).
- 2003 1st Place at Stanford Social e-Challenge Business Plan Competition, Project: eImmunization.
- 2002 Stanford University School of Education Quillen Fellowship & Research Award 2002-03.

Publications

Peer Reviewed Articles in Journals

Computer Supported Global & Virtual Work; ICT for Development

Pipek, V., Wulf, V. & **Johri**, A. (2011). Bridging Artifacts and Actors: Expertise Sharing in Organizational Ecosystems. *Journal of Computer Supported Cooperative Work*, Online: July 27, 2011.

Johri, A. & Pal, J. (accepted). Capable and Convivial Design: A Framework for Designing Information and Communication Technology for Human Development. *Information Technology and Development*

Johri, A. & Nair, S. (2011). The Role of Design Values in Information Systems Development for Human Benefit. *Information Technology and People*, Vol. 24, Issue 3.

Johri, A. (2011). Sociomaterial Bricolage: The Creation of Location-Spanning Work Practices by Global Software Engineers, *Information and Software Technology*, 53(9): 955-968.

Johri, A. (2010). Open Organizing: Designing Sustainable Work Practices for the Engineering Workforce. *International Journal of Engineering Education*, 26(2):278-286.

Learning Technologies & Learning Practices

Johri, A., & Teo, H. (Forthcoming 2012). Assessing the Effectiveness of Open Organizing as Model for Re-designing Design Learning. *International Journal of Engineering Education*.

Johri, A. (2011). The Sociomateriality of Learning Practices and Implications for Learning Technology. *Research in Learning Technology*, Vol. 11, Issue 3.

Johri, A. & Olds, B. (2011). Situated Engineering Learning: Bridging Engineering Education Research and the Learning Sciences. *Journal of Engineering Education*, 100(1):151-185.

Johri, A. & Lohani, V. (2011). Increasing Engineering Representational Literacy through the Use of Pen-based Computing. *International Journal of Engineering Education*, Vol. 27, No. 5., pp. 958-967.

Evans, M. & **Johri**, A. (2008): Facilitating Guided Participation through Mobile Technologies. *Journal of Computing in Higher Education*, 20(2): 92-105.

Peer Reviewed Articles in Books

Learning in Online Communities

Johri, A. (2006). Interpersonal Assessment: Assessing Peer Knowledge and Behavior in Online Learning Environments. In Roberts, T. (Ed). *Self, Peer, And Group Assessment in E-Learning*. Idea Group Publishing. pp. 283-312.

Johri, A. (2005). Online, Offline, and In-Between: Analyzing Mediated-Action among American and Russian Students in an Online Class. In Roberts, T. (Ed). *Computer-Supported Collaborative Learning in Higher Education*. Idea Group Publishing. pp. 259-280.

Avery, C., Civjan, J., & **Johri, A.** (2005). Assessing Student Interaction in the Global Classroom Project: Visualizing Communication and Collaboration Patterns Using Online Transcripts. In Cook, K. C., & Grant-Davie, K. (Eds). *Online Education: Global Questions, Local Answers*. pp. 245-266. Baywood Publishing Co. (*Editorially Reviewed*)

Journal Articles Under Review

Johri, A. & Schultze, U. Sociomateriality of Digital Innovation, Revise & Resubmit, *Organization Science*

Mitra, R., **Johri, A.** & Nov, O. Environmental Jolts: The Effect of External Events on Newcomer Participation in Open Source Online Communities, under review at *Journal of the American Society for Information Science and Technology*

Johri, A. From a Distance: Impression Formation and Impression Accuracy Among Distributed Coworkers, under review at *Information Systems Journal*

Liu, X., Wang, G. A., **Johri, A.** & Fan, W. Harnessing Global Expertise: A Comparative Study of Expertise Profiling Methods for Online Communities, under 2nd review at *Journal of Global Information Technology and Management*

Johri, A. Learning to Demo: The Sociomateriality of Newcomer Participation in Engineering Research Practices, under review at *Engineering Studies*

Working Papers (*Drafts Available for Distribution*)

Johri, A. Why We See Distributed Coworkers Differently: Situational and Institutional Framing of Impressions. (12, 934 words)

Johri, A. & Teo, H. J. Designing and Sustaining Collective Intelligence Practices in a Geographically Distributed Firm: Evidence from a Field Study. (10,018 words).

Johri, A. & McNair, L. Productive Partnerships: Networking, Framing and Organizing as Boundary-Spanning Mechanisms in Global Knowledge Work. (12,890 words).

Johri, A., Williams, C. & Pembridge, J. Creative Collaboration: The Role of Computers in Supporting Representational and Relational Interaction in Student Engineering Design Teams. (7,000 words).

Edited Volumes

Johri, A. & Olds, B. *The Cambridge Handbook of Engineering Education Research*. Cambridge University Press, Expected publication: December 2012.

Johri, A., Olds, B. & Roth, W-M. (2012). Representations and Engineering Learning. Special issue of *Journal of Engineering Education*.

Johri, A. Engineering and the Workplace. Double theme issue of *Engineering Studies*. Published: Dec. 2010 & August 2011.

Peer Reviewed Articles in Conference Proceedings*

Computer Supported Global & Virtual Work; Online Communities; ICT for Development

Johri, A. (2011). Look Ma, No Email! Blogs and IRC as Primary and Preferred Communication Tools in a Distributed Firm. *Proceedings of the ACM Conference on Computer Supported Cooperative Work*, March 2011, pp.305-308. (**Best Note Award, Top 1% of All Submissions**)

Singh, V., **Johri, A.** & Mitra, R. (2011). Types of Newcomers in an Online Developer Community. *Proceedings of the ACM Conference on Computer Supported Cooperative Work*, March 2011, pp. 717-720.

Johri, A., Nov, O. & Mitra, R. (2011). Environmental Jolts: Impact of Exogenous Factors on Online Community Participation. Interactive paper to appear in *Proceedings of the ACM Conference on Computer Supported Cooperative Work*, March 2011, pp.649-652.

Mitra, R., Singh, V. & **Johri, A.** (2011). Cyberlearning Ecosystem - Users, Technology and Tools. *Proceedings of iConference 2011*, Feb. 8-11, Seattle, USA, pp. 719-721.

Johri, A., Nov, O. & Mitra, R. (2011). "Cool" or "Monster"? Company Takeovers and Their Effect on Open Source Community Participation. *Proceedings of iConference 2011*, Feb. 8-11, Seattle, USA, pp. 327- 331.

Goncher A., Kothaneth S. & **Johri A.** (2010). Team Communication and Innovative Design Practices: The Effect of Team Adoption and Implementation of the Tablet PC. *Proceedings of the 54th Human Factors and Ergonomics Conference*. Sept 27th to Oct.1, 2010, San Francisco, pp.1971-1975.

Johri, A. (2009). Preparing Engineers for a Global World: Identifying and Teaching Sensemaking and Practice Forming Strategies. *Proceedings of 39th ASEE/IEEE Frontiers in Education Conference, October 18- 21, 2009, San Antonio, TX*. pp. M2D-1-M2D-6.

Johri, A. (2008). Boundary Spanning Knowledge Broker: An Emerging Role in Global Engineering Firms. In *Proceedings of 38th ASEE/IEEE Frontiers in Education Conference Saratoga Springs, NY*. pp. S2E-7-S2E-12.

* Underlined authors denote student authors; all papers were also presented at the conference.

Evans, M., **Johri**, A., Glasson, G., Cagiltay, K, Pal, J., & Sarkar, P. (2008). ICT for Development and the Learning Sciences. *In the proceedings of International Conference of Learning Sciences 2008*. Vol. 3, pp.229-236.†

Johri, A., Pipek, V., & Wulf, V. (2007). Bridging Artifacts and Actors: Supporting Knowledge and Expertise Sharing Work Practices through Technology. *1st Symposium on Computer-Human Interaction and Management of Information Technology*, Boston, MA, March 30-31, 2007. pp. 1-2.

Information Infrastructure for Scientific Communities

Madhavan, K.P.C., Xian, H., **Johri**, A., Vorvoreanu, M., Jesiek, B.K., & Wankat, P.C. (2011). Understanding the Engineering Education Research Problem Space Using Interactive Knowledge Networks. *Proceedings of the American Society of Engineering Education Annual Conference and Exposition*, Vancouver, BC. (2011).

Johri, A., Wang, A., Liu, X. & Madhavan, K. (2011). Utilizing Topic Modeling Techniques to Identify Emergence and Growth of Research Topics in Engineering Education, *Proceedings of IEEE FIE 2011*.

Newstetter, W., **Johri**, A., & Wulf, V. (2008). Laboratory Learning: Industry and University Research as Sites for Situated and Distributed Cognition. *Proceedings of International Conference of Learning Sciences 2008*. Vol. 3, pp.290-297.

Learning Technologies

Johri, A. & Teo, Hon Jie (2011). Leveraging Advances in Open Innovation to Re-design Design Learning. *Electronic Proceedings of MUDD VIII Design Workshop*, Harvey Mudd College, Claremont, CA, May 28-29.

Johri, A., Lo, J. Dufour, M. & Shanahan, D. (2010). AdWiki: Designing and Implementing a Socio-Technical Infrastructure for Engineering Student Advising. *Proceedings of the Frontiers in Education Conference*, Oct. 2010, Arlington, VA.

Goncher, A., **Johri**, A., Kothaneth, S. & Lohani, V. (2009). Exploration and Exploitation in Engineering Design: Examining the Effects of Prior Knowledge on Creativity and Technology Use. In *Proceedings of 39th ASEE/IEEE Frontiers in Education Conference, October 18 - 21, 2009, San Antonio, TX*. p.M1J-1-M1J-7.

Pembridge, J., **Johri**, A. & Williams, C. (2009). Transformative Design Practices: Comparing Face-to-Face and Technology-Mediated Design Experiences among Engineering Students. *Proceedings of 39th ASEE/IEEE Frontiers in Education Conference, October 18 - 21, 2009, San Antonio, TX*. pp. W2H-1-W2H-7.

Lohani, V. K., Castles, R., **Johri**, A., Spangler, D., and Kibler, D. (2008). Analysis of Tablet PC Based Learning Experiences in Freshman to Junior Level Engineering Courses, *Proc. 2008 ASEE Annual Conference*, June 22-25, 2008, Pittsburgh. AC 2008-1763.

Johri, A. & Lohani, V. (2008). Representational Literacy and Participatory Learning: Analyzing Tablet Experiences in Large Classes. In *Proceedings of 38th ASEE/IEEE Frontiers in Education Conference Saratoga Springs, NY*. pp. S3J-1-S3J-6.

Johri, A. & Lohani, V. (2008). Creating a Participatory Learning Environment in Large Classes Using Pen-Based Computing. *Proceedings of International Conference of Learning Sciences 2008*. Vol. 1, pp.398- 405.

† The acceptance rate for ICLS and CSCL ranges between 30-50%, ACM conference acceptance rate range between 15-25%

Johri, A. & Lohani, V. (2008). Analysis of Tablet PC Based Learning Experiences in Engineering Classes. In *the proceedings of International Conference of Learning Sciences 2008*. Vol. 3, pp.51-52.

Johri, A. (2007). The Socio-Technical Process of Newcomer Participation: Findings from a Field Study. *International Conference of Computer Supported Collaborative Learning*, Rutgers, NJ, July 16 –21, 2007. pp. 438-439.

Barron, B., Tackman, J., Martin, C. Mercier, E., **Johri, A.**, Johnson et al. (2004) Equity and the Development of Technological Fluency. *The Proceedings of the Sixth International Conference of the Learning Sciences (ICLS)*. Mahwah, NJ: Erlbaum.

Civjan, J., **Johri, A.**, Avery, C. & Herrington, T. (2002). VisOC: A Tool for Visualizing Online Communication in Educational Settings. In P. Bell, R. Stevens, & T. Satwicz (Eds.), *Keeping Learning Complex: The Proceedings of the Fifth International Conference of the Learning Sciences (ICLS)*. Mahwah, NJ: Erlbaum.

Broglio, R. & **Johri, A.** (2002). Living Inside the Poem: Enhancing English Literature Classes with MOOs. In P. Bell, R. Stevens, & T. Satwicz (Eds.), *Keeping Learning Complex: The Proceedings of the Fifth International Conference of the Learning Sciences (ICLS)* (pp. 512-513). Mahwah, NJ: Erlbaum.

Learning and Design Practices

Goncher, A. & **Johri, A.** (2011). Do Authentic Constraints Inspire Innovative Solutions? Findings from a Case Study of a Freshmen Engineering Design Project. *Electronic Proceedings of MUDD VIII Design Workshop*, Harvey Mudd College, Claremont, CA, May 28-29.

Goncher, A., **Johri, A.** & Sharma, A. (2010). Use-Value and Functionality versus Aesthetics and Experience: Inculcation of Design Ideologies in Engineering and Industrial Design Students. *Proceedings of the Frontiers in Education Conference*, Arlington, VA, 2010.

Goncher, A. & **Johri, A.** (2011). The Identification and Emergence of Constraints in Engineering Design Projects. *Proceedings of 2011 Annual Conference and Exposition of the American Society of Engineering Education*, Vancouver, BC.

Pierrakos, O., Beam, TK., Constantz, J., **Johri, A.**, & Anderson, R. (2009). On the Development of a Professional Identity: Engineering Persisters Vs Engineering Switchers. *Proceedings of 39th ASEE/IEEE Frontiers in Education Conference*, October 18 - 21, 2009, San Antonio, TX. pp. M4F-1-M4F-6.

Johri, A. (2009). Work in Progress – Reorganizing Engineering Pedagogy: Preventing Student Disengagement by Increasing Dialogic Learning. *Proceedings of 39th ASEE/IEEE Frontiers in Education Conference*, October 18 - 21, 2009, San Antonio, TX. pp. M3J-1-M3J-2.

Beam, TK., Pierrakos, O., Constantz, J., **Johri, A.**, & Anderson, R. (2009). Preliminary Findings on Freshmen Engineering Students' Professional Identity: Implications for Recruitment and Retention. *Proceedings of 2009 Annual Conference and Exposition of the American Society of Engineering Education*, Austin, Texas, June 14-17. AC 2009-993.

Johri, A. (2002). Designing for Change: Findings from an Ethnographic Study of a Complex Learning Environment. In P. Bell, R. Stevens, & T. Satwicz (Eds.), *Keeping Learning Complex: The Proceedings of the Fifth International Conference of the Learning Sciences (ICLS)*. Mahwah, NJ: Erlbaum.

Editorials/Book Reviews

Johri, A. (2011). Global, Technological, and Environmental Challenges for Engineering Professionals. (Theme Issue Editorial). *Engineering Studies*.

Johri, A. (2010). Situated Engineering in the Workplace: Theme Issue Editorial, *Engineering Studies*.

Johri, A. (2010). Guest Editorial: Creating Theoretical Insights in Engineering Education. *Journal of Engineering Education*, July 2010.

Johri, A. (2010). Book Review Essay: Global and Virtual Teamwork. *Journal of Engineering Education*, January 2010.

Refereed Workshops

Wyche, S. P., **Johri, A.**, Oreglia, E., Sengers, P., Ames, M. G., Steinfeld, C. & Hoadley, C. (2012). Learning from Marginalized Users: Reciprocity in HCI4D. Forthcoming Workshop at CSCW 2012.

Johri, A. & Olds, B. (2010). Engineering Learning. Pre-conference Workshop at International Conference of the Learning Sciences 2010, Chicago, IL, June 2010.

Johri, A. & Madhavan, K. (2010). Introduction to Cyberinfrastructure for Engineering Education Research, Learning and Outreach. Invited Workshop at NSF EEC Awardees Conference, Reston, VA, Feb. 1-2, 2010.

Johri, A., Chen, H. & Lande, M. (2009). Creativity and Cognition in Engineering Design: Theoretical and Pedagogical Perspectives. *Workshop at Creativity and Cognition 2009*, Berkeley, CA.

Johri, A. & Wulf, V. (2007). Communities of Practice in Highly Computerized Work Settings. Workshop organized at *Communities and Technologies Conference (C&T 2007)*, East Lansing, Michigan.

Invited Contribution to National-level Policy Reports/Initiatives

Madhavan, K.P.C., Xian, H., Vorvoreanu, M., & Johri, A. (2010). Discovery in a Research Portfolio: Tools for Structuring, Analyzing, Visualizing and Interacting with Proposal and Award Portfolios. Final Report on Recommendations from NSF CISE and SBE AC Subcommittee, November 2010.

American Society for Engineering Education (ASEE) report: "Innovations in Engineering Education," November 2008, Atlanta, GA.

NSF Workshop: "Cyberinfrastructure and Engineering Education," September 4-5, 2008, Arlington VA.

NSF Report: "Thought Leaders Workshop on the Future of Engineering Education," June 2008.

Presentations

Refereed Conference Presentations (separate from proceedings)

Computer Supported Global & Virtual Work; ICT for Development

Johri, A. & Sharma, A. (2011). Designing for Development: Three Preliminaries Studies from Field Research in India. Workshop on *Mobile Collaboration in the Developing World* at ACM CSCW 2011, March 20, 2011.

Johri, A. (2010). Leveraging the Digital Media Ecology in a Distributed Firm. Presented at the *International Symposium of Information Systems*, Hyderabad, India, Dec. 18, 2010.

Johri, A. (2009). Using Case Studies and Case Preparation Kits to Teach Global Team Competency. Poster Session at the *12th Annual Colloquium on International Engineering Education*, Ames, Iowa October 22-25, 2009.

Johri, A. (2009). Multiplicity and Personalization: How Global Engineers Develop Successful Technology-Mediated Work Practices, *12th Annual Colloquium on International Engineering Education*, Ames, Iowa October 22-25, 2009.

Johri, A. (2009). Demo or Die: The Collective Championing of Digital Innovations in an R&D Organization. *Academy of Management*, 2009, Chicago, IL.

Johri, A. (2008). Why We See Distributed Coworkers Differently: Situational and Institutional Shaping of Impressions. Presented at Organizational Communication and Information Systems Division Session on Individuals and Distributed Work, *Academy of Management*, 2008, Anaheim, CA.

Johri, A. (2005). Working Across the Pacific: A Field Study of Impression Formation among Distributed Coworkers in an R&D Organization, Presented at the Doctoral Consortium Workshop, *European Computer Supported Cooperative Work*, September 2005, Paris, France.

Johri, A. (2005). Understanding Impression Formation and Impression Accuracy Among Distributed Coworkers. Presented at Organizational Communication and Information Systems Division, *Academy of Management*, 2005, Honolulu, HI.

Learning Technologies; Online Learning Communities

Johri, A. (2006). Interpersonal Impression Formation in a Community of Practice. Presented at the Doctoral Consortium *International Conference of Learning Sciences*, June 2006, Bloomington, Indiana.

Johri, A. (2005) Knowing Others: Understanding Interpersonal Impression Formation Among Learners in Technology Mediated Communities of Practice. Presented at the Student Community Workshop, *Computer Supported Cooperative Learning*, May 2005, Taipei, Taiwan. (Supplemental conference proceedings)

Johri, A. (2005). Understanding and Developing a "Learning Relationship" in Computer Supported Learning Communities. Presented at the Fostering Learning Communities Workshop, *Computer Supported Cooperative Learning*, May 2005, Taipei, Taiwan.

Johri, A. (2005). Sharing Interpersonal and Contextual Knowledge: Developing a Community of Practice in Distributed Online Learning Environments. *Annual Conference of American Educational Research Association*, 2005, Montreal, Canada.

Johri, A. (2005). Using Structuration Theory to Analyze and Understand Technology Use in a Distributed Online Learning Environment. *Annual Conference of American Educational Research Association*, 2005, Montreal, Canada.

Johri, A. (2003). When the Technology that Facilitates is also the Technology that Inhibits: Results from the Case Study of a Cross-Cultural Online Learning Environment. *Annual Conference of American Educational Research Association*, 2003, Chicago, IL.

Barron, B., Martin, C., Mercier, E., Pilner, K., Mathias, A., **Johri, A.**, & Walter, S. (2003). Patterns of Participation in Fluency-Building Experiences in a High-tech Community: Implications for Bridging Divides by Design. *Annual Conference of American Educational Research Association*, 2003, Chicago, IL.

Invited Presentations

Madhavan, K.P.C., Xian, H., Vorvoreanu, M., **Johri, A.**, Jesiek, B., Wang, A., & Wankat, P. (2010). The FIE Story - 1991 to 2009.² Invited video presentation featured at the Frontiers in Education Conference 2010. Available online at <http://www.youtube.com/watch?v=bKA4zJc3bsA>. (October 2010).

Johri, A. (2011). Representing Engineering Education: Can Relational and Epistemic Representations Increase Our Understanding of the Engineering Education Research Enterprise? Presented at the Virginia Tech/Clemson Seminar Series on Engineering Education Research, Feb. 25, 2011.

Johri, A. (2010). Engineering and Development: Values and Design. Presented at Microsoft Research Labs, Bangalore, India, September, 2010.

Johri, A. (2010). Computational Literacy: The Reshaping of Human Practices through Digital Representations. Presented at School of Education and Social Policy, Northwestern University, Chicago, IL, February 9, 2010.

Johri, A. (2007). Innovation in a Flat and Networked World. Presented at GENENCOR Inc. Palo Alto, CA, July 10, 2007.

Johri, A. (2007). Global Innovators: Preparing Engineers for a Flat and Networked World. Presented at the Department of Engineering Education, Virginia Tech, March 2007.

Johri, A. (2006). Mediated Impressions: How Digital Technology Affects Impression Formation and Shapes Collaboration and Learning. Presented at the Department of Educational Theory and Practice, School of Education, State University of New York at Albany, December 2006.

Johri, A. (2006). Technology and Collaboration in R&D Laboratories. Microsoft Research Labs, Bangalore, India, September 2006.

Johri, A. (2006). Interpersonal Impression Formation in a Community of Practice. University of Siegen, Germany, July 2006.

Johri, A. (2005). Understanding Impression Formation and Impression Accuracy Among Distributed Coworkers. Fraunhofer FIT, Sankt Augustin, Germany, August 2005.

Grants

External Grants

- 2011-2015 NSF-DUE (#1122609), Collaborative Research: Deep Insights Anytime, Anywhere (DIA2) - Central Resource for Characterizing the TUES Portfolio through Interactive Knowledge Mining and Visualizations. Johri, A. (Role: PI), Co-PIs: N. Ramakrishan, & G. Alan Wang, Total Award: \$3.03 Million; Share: \$710,036.
- 2010-2014 NSF CAREER EEC (#0954034), "Investigating Global Engineering Work Practices to Prepare 21st Century Engineers" (Role: PI, \$406,987).
- 2010-2012 NSF-EEC (#0935143): Collaborative Proposal (IEECI Exploratory): Identifying Practices and Tools to Promote Newcomer Participation in Cyberlearning Environments (Role: PI, Total Award =\$200K, Share: \$99,401).
- 2010-2012 NSF-EEC (#0935124): Collaborative Research: Interactive Knowledge Networks for Engineering Education Research (iKneer), (Role: PI; Co-PI: G. Alan Wang; Total Award Amount=\$400K, VT Share=\$132,474).
- 2011-2013 NSF-DUE (#1044790), Advancing Personalized Engineering Learning Via an Adaptive Concept Map, Role: Co-PI; PI: Dr. Chris Williams, \$198,753.
- 2008-2010 NSF-EEC (#0835892): AdWiki: Cultivating a Wiki-Based Online Community of Practice for Advising Engineering Students by Integrating Open Source Business Model and Social Psychology Principles (Role: PI, Co-PI: Jenny Lo, Award Amount: \$99,927)
- 2008-2011 NSF-IIS (#0757540): Examining Creativity with IT in Engineering Design (X-CITED) (Role: PI, Co-PIs: Deborah Tatar & Vinod Lohani; Award Amount: \$209,641).
- 2008-2010 NSF-EEC (#0832002): Building Connections within the Engineering Education Research Community (PI: Lisa McNair, Role: Co-PI, \$367,154)
- 2008-2011 NSF-EEC BRIGE (#0824337): Investigating Engineering Student Identity Formation, (PI: Olga Pierrakos; James Madison University, Role: External Consultant, \$174,643)
- 2008-2009 Sun Microsystems, Unrestricted Gift, \$10,000.
- Under Review Collaborative Research: Examining Online Engineering Communities to Identify Educational Motivations and Productive Interactions that Support Informal Learning, submitted to NSF, Role: PI; with Oded Nov and A. L. Fayyard (NYU-Poly) (\$210,000)

Internal Grants

- 2009-2010 Institute for Critical Technology and Applied Science, (#117443): Investigating VT Knowledge Networks (VTKN), (Role: PI, Co-PI: G. Alan Wang, Award Amount: \$35,000)
- 2010-2011 Pratt Fellowship for International Research (VT College of Engineering), \$6,000 (Role: PI)
- 2009-2010 Small Grant for Exploratory Research, Office of International Research, Education and Development, Virginia Tech, (Role: PI) \$2,500
- 2004-2005 Grant from MediaX at Stanford for the project "Finding Knowledge: Understanding Impression Accuracy in Distributed Work", Amount: \$40,000, (PI: Pamela Hinds)

Teaching Experience

Graduate

Instructor	Foundations of Engineering Education (22 students)		Fall 2011
Instructor	Global Engineering Work Practices (6 students)	(3.7/4.0)	Spring 2010
Instructor	Ethnographic and Qualitative Research (10 students)*	(4.0/4.0)	Fall 2009
Instructor	Global Engineering Work Practices (10 students)*	(4.0/4.0)	Spring 2009
Co-Instructor	Foundations of Engineering Education* (10-12 students)	(3.6/4.0)	Spring 2008, Fall 2008
Co-Instructor	Human-Computer Interaction in Education* (Stanford) (10 students)		Fall 2004

Undergraduate

Co-Instructor	Engineering Design for Social Development* (20 students)		Fall 2011
Instructor	Engineering Design (408 students; 2.96/4.0)		Spring 2011
Co- Instructor	Engineering Explorations (450 students; 3.3/4.0; College Mean=3.2)		Fall 2007

Graduate Teaching Assistant (All courses at Stanford)

- Online Learning Communities (Instructor: Roy Pea)
- HCI in Education (Instructor: Decker Walker)
- Persuasive Technologies in Education (Instructor: BJ Fogg)

*Courses marked * are new offerings or a substantial redesign of a prior offering

Student Advising

Dissertation Advisor

- Andrea Goncher (Ph.D., Engineering Education)
- Hon Jie Teo (Ph.D., Engineering Education)
- Brian Lewis (Ph.D., Engineering Education)

Dissertation Committee Member

- Joon Suk Lee (Computer Science, Advisor: Deborah Tatar)
- Jacob Moore (Engineering Education, Advisor: Chris Williams)
- Sumitra Nair (Science and Technology Studies, Advisor: Gary Downey)
- Ricardo Quintana-Castillo (Computer Science, Advisor: Manuel Perez-Quinones)

Student Advising (cont.)

Alumni

Raktim Mitra (Chair, M.S. Thesis, Industrial and Systems Engineering)

Ashwin Khandeparker (Chair, M.S. Project, Computer Science)

Graduate Students Funded on Projects

Asta Schram (Fall 2010)

Prasanna Kumar (Fall 2010)

Gaurav Dongaonkar (Spring 2010)

Monique Dufour (Fall 2009, Spring 2010)

Xiaomo Liu (Fall 2008, Spring 2009)

James Pembridge (Spring 2008)

Shreya Kothaneth (Spring 2008, Fall 2009)

Varun Ramdas (Fall 2007)

Undergraduate Students Funded on Projects

Lina Garada (Summer 2011, Fall 2011)

Erin Campbell (Summer 2011)

Kevin Cherniawski (Summer 2011)

Greg Mitchell (Summer 2011)

Daniel Calabrese (Summer 2011)

Daniel Shanahan (Fall 2009, Spring 2010)

Nihar Simal (Summer 2009)

Younes Taleb (Spring 2009)

Vismay Shah (Spring 2008, Fall 2009, Spring 2009)

Daniel Breakiron (Fall 2007)

Undergraduate Advising (2007-2011)

Around 50-100 freshmen/sophomore-level students each semester

Created a system (AdWiki) to improve student advising at the departmental level

Service to the Institution and the Profession

Institutional Service

Departmental Level

Member, Department of Engineering Education Graduate Committee (2007-2009)

Co-Chair, Department of Engineering Education Strategic Planning Committee (2009 – present)

Development of strategic plan in accord with faculty and advisory board

College Level

Member, International Program Faculty Committee, College of Engineering (2011-present)

University Level

Member, Committee on Equal Opportunity and Diversity (2008–2011), Virginia Tech

Institutional Partnership Taskforce 2008-2009; Campus Climate Taskforce 2009-2010

Reviewer for Student Grants, Graduate Research Development Program at GSA

At Stanford

Student Representative PSE Committee (2004-05)

Member, BASES Social Entrepreneurship Business Plan Competition Teams (2005-06)

Mentor: Incoming Ph.D. students (2003-05)

Member, Learning Design & Technology M.A. Admissions Review Committee 2004

Service to the Profession

Member, NSF CISE/SBE AC Sub-Committee on Research Portfolio Analysis

Program Committee Member

NSF EEC Division Annual Awardees Conference 2010 (Co-Organizer)

NSF EEC Division Annual Awardees Conference 2009 (Co-Organizer)

European Conference on Computer-Supported Cooperative Work 2009

European Conference on Computer-Supported Cooperative Work 2011

MobileHCI, International Conference on Mobile Human-Computer Interaction 2009

9th International Conference on Design of Cooperative Systems 2010, 2012

2nd Conference on Computer-Human Interaction and Management of Information Technology (CHIMIT 2010)

9th Annual Workshop on HCI Research in MIS, Pre-ICIS, St. Louis, Missouri, December 12, 2010

8th ACM Conference on Creativity and Cognition, Nov. 3-6, 2011, Atlanta, GA

ACM CHI 2012, Program Committee Member, Work in Progress

Reviewing

Journals

Journal of Computer Supported Cooperative Work

MIS Quarterly

International Journal of Human-Computer Studies

Information and Software Technology

Decision Support Systems

Journal of the American Society for Information Science and Technology

Journal of Engineering Education

International Journal of Engineering Education

The Journal of the Learning Sciences

Engineering Studies

Mind Culture and Activity

Conferences

Computer Supported Cooperative Work (CSCW) 2006, 2008, 2011, 2012

Computer-Human Interaction Conference (CHI) 2003, 2005, 2006, 2009, 2010

International Conference of Information Systems (ICIS) 2006, 2010

Annual Conference of the Academy of Management, 2006, 2007, 2008, 2009

International Conference of Learning Sciences (ICLS) 2006, 2008

International Conference of Computer-Supported Cooperative Learning (CSCL) 2007, 2009

American Education Research Association Conference (AERA) 2003, 2005

Persuasive Technology Conference, 2007

HICSS, Learning Analytics Mini-track, 2012

Grant Proposals

National Science Foundation Panel (2008 -2011): Multiple panels for the IIS, DUE, CDI & EEC divisions

National Science Foundation Site Review for Engineering Research Center (ERC)

Indo-US Science & Technology Forum (IUSSTF) Proposal Review

Apprenticeship Faculty Grant, ERM Division, ASEE, 2011

Discussant

TIM Session, "Adaptation and Chance: Learning Issues" Academy of Management Conference 2008

TIM Session "Organizational Relations: Alliance/Joint Ventures" Academy of Management Conference 2008

Professional Memberships

Association for Computing Machinery (ACM)

International Society of Learning Sciences (ISLS)

American Society of Engineering Education (ASEE)

Academy of Management (AoM)

International Network of Engineering Studies (INES)

Language Skills

Fluency in English & Hindi; Limited proficiency in German