

# Madhu C. Reddy

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## ACADEMIC APPOINTMENTS

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**Associate Professor** 07/2010- Present  
College of Information Sciences and Technology  
The Pennsylvania State University, University Park, PA

**Assistant Professor** 08/2005- 07/2010  
College of Information Sciences and Technology  
The Pennsylvania State University, University Park, PA

**Assistant Professor** 08/2003-07/2005  
Department of Business and Information Technology  
Missouri University of Science and Technology, Rolla, MO

## ADMINISTRATIVE APPOINTMENTS

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**Chair, Faculty Council** 02/2011- Present  
College of Information Sciences and Technology  
The Pennsylvania State University, University Park, PA

**Interim Graduate Advisor** 02/2011- Present  
College of Information Sciences and Technology  
The Pennsylvania State University, University Park, PA

**Graduate Programs Director** 07/2010- 02/2011  
College of Information Sciences and Technology  
The Pennsylvania State University, University Park, PA

## ACADEMIC AFFILIATIONS

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**Founding Member** 2009-Present  
Penn State Center for Integrated Healthcare Delivery Systems

**Faculty Affiliate** 2007-Present  
Center for Health Communications  
Center for Health Care and Policy Research 2006-Present

**EDUCATION**

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Ph. D., Information and Computer Science (UC Irvine) (Thesis Advisors: Paul Dourish and Wanda Pratt)	2003
M.S., Information and Computer Science (UC Irvine)	1999
M.S., Health Care Administration (Cal State, Long Beach)	1995
B.S., Biological Science (UC Irvine)	1994
B.A., Political Science (UC Irvine)	1992

**RESEARCH INTERESTS**

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Computer-Supported Cooperative Work (CSCW), Medical Informatics, Information Sciences, Human-Computer Interaction (HCI), collaborative information behavior, socio-technical analysis, ethnographic study, collaborative systems design

**HONORS**

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1. Diana E. Forsythe Award Winner (American Med. Info Assoc.)	2010
2. Honorable Mention, ACM Conference on Computer Supported Cooperative Work	2010
3. Diana E. Forsythe Award Finalist (American Med. Info Assoc.)	2009
4. Best Paper Selection, International Medical Informatics Association (IMIA) Yearbook	2009
5. National Science Foundation Faculty Early Career Development Award	2009
6. Outstanding Faculty Award (School of Management and Info. Sys)	2004
7. New Faculty Teaching Scholar (University of Missouri)	2004
8. Outstanding Paper Award (Assoc. for Adv. of Comp. in Education)	2004
9. Diana E. Forsythe Award Finalist (American Med. Info Assoc.)	2003
10. Diana E. Forsythe Award Winner (American Med. Info Assoc.) (Awarded for the best paper of the year at the intersection of medical informatics and social science)	2002

**PUBLICATIONS**

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***Peer Reviewed Journal***

1. **Reddy, M.**, Gorman, P., and Bardram, J. (In press). Supporting Collaboration in Healthcare Settings” The Role of Informatics. (Editorial Introduction to Special Issue). *International Journal of Medical Informatics*.
2. Spence, P.R. and **Reddy, M.** (Accepted). Beyond Expertise Seeking: A Field Study of the Informal Knowledge Practices of Healthcare IT Teams. *Journal of Computer Supported Collaborative Work*.
3. Payton, F., LaRouge, C., Pare, G., and **Reddy, M.** (2011). Health Care IT: Processes, People, Patients, and Interdisciplinary Considerations. (Editorial Introduction to Special Issue). *Journal of the Association for Information Systems*.
4. Abraham, J. and **Reddy, M.** (2010). Challenges to the Coordination of Patient Transfers: A Workflow Perspective. *International Journal of Medical Informatics*. 79: 112-122.
5. Paul, S., **Reddy, M.**, and DeFlitch, C. (2010). A Systematic Review of Simulation Studies Investigating Emergency Department Overcrowding. *Simulation: Transactions of the Society for Modeling and Simulation International*.
6. **Reddy, M.**, Paul, S., Abraham, J., McNeese, M., DeFlitch, C., and Yen, J. (2009). Challenges to Effective Crisis Management: Using Information and Communication

- Technologies to Coordinate Emergency Medical Services and Emergency Department Teams. *International Journal of Medical Informatics*. 78: 259-269. [2010 Diana Forsythe Award Winner]
7. **Reddy, M.**, Shabot, M.M, and Bradner, E. (2008) Evaluating Collaborative Features of Critical Care Systems: a methodological study of information technology in surgical intensive care units. *Journal of Biomedical Informatics*. 41: 479-487. [2009 Diana Forsythe Award Finalist]
  8. **Reddy, M.**, Puroo, S., and Kelly, M. (2008) Developing IT Infrastructure for Rural Hospitals: a case study of benefits and challenges of hospital-to-hospital partnerships. *Journal of the American Medical Informatics Association*. 15: 554-558. [Re-published as a best paper in the 2009 IMIA Yearbook of Medical Informatics]
  9. **Reddy, M.** and B.J. Jansen. (2008) A Model for Understanding Collaborative Information Behavior in Context: A Study of Two Healthcare Teams. *Information Processing and Management*. 44(1): 256-273.
  10. **Reddy, M.** and P.R. Spence. (2008) Collaborative Information Seeking: A field study of a multidisciplinary patient care team. *Information Processing and Management*. 44(1): 242-255.
  11. Chaisson, M., **Reddy, M.**, Kaplan, B., and Davidson, E. (2007). Learning by Crossing Disciplinary Boundaries: What does the field of Information Systems have to offer Medical Informatics? *International Journal of Medical Informatics*. 76. pp. s89-s97.
  12. **Reddy, M.**, Dourish, P., and Pratt, W. (2006). Temporality in Medical Work: Time also matters”. *Journal of Computer Supported Collaborative Work*. 15(1): 29-53.
  13. **Reddy, M.**, McDonald, D., Pratt, W., and Shabot, M. (2005). Technology, Work, and Information Flows: Lessons from the implementation of a wireless alerts pager system. *Journal of Biomedical Informatics*, 38/3. pp. 229-238.
  14. Pratt, W., **Reddy, M.**, McDonald, D., Tarczy-Hornoch, P., and Gennari, J. (2004). Incorporating Ideas from Computer-Supported Cooperative Work. *Journal of Biomedical Informatics*, 37/2. pp 128-137.
  15. **Reddy, M.**, Pratt, W., Dourish, P., and Shabot, M.M. (2003). Sociotechnical Requirements Analysis for Clinical Systems. *Methods of Information in Medicine*, 42, 437-444.

**Peer Reviewed Conference Papers** (acceptance rates added where possible)

1. Zhu, S., **Reddy, M.**, Yen, J., and DeFlicht, C. (Accepted). SRCAST-Diagnosis: Understanding how Different Members of a Patient-care Team Interact with Clinical Decision Support System. In *Proc. of American Medical Informatics Association Fall Symposium (AMIA'11)*. Washington, DC. Oct 22-26, 2011.
2. Mønsted, T., **Reddy, M.** and Bansler, J. (Accepted). The Use of Narratives in Medical Work: A Field Study of Physician-Patient Consultations. In *Proc. of European Conference on Computer Supported Cooperative Work (ECSCW'11)*. Aarhus, Denmark. September 24-28, 2011. (acceptance rate: 25.8%)
3. Paul, S., and **Reddy, M.** (2010). Understanding Together: Sensemaking in Collaborative Information Seeking. In *Proceedings of ACM Conf on Computer Supported Cooperative Work (CSCW'10)*. Savannah, GA. February, 6-10, 2010. pp. 321-330. (acceptance rate: 20%) (*Honorable Mention*)
4. Mentis, H., **Reddy, M.**, and Rosson, M.B. (2010). Invisible Emotion: Information and Interaction in an Emergency Room. In *Proceedings of ACM Conf on Computer Supported Cooperative Work (CSCW'10)*. Savannah, GA. February, 6-10, 2010. pp. 311-320 (acceptance rate: 20%)

5. Zhu, S., **Reddy, M.**, and Yen, J. (2009). Hypothesis-Driven Story Building Framework: Enhancing Iterative Process Support in Clinical Diagnostic Decision Support Systems. In *Proc. of American Medical Informatics Association Fall Symposium (AMIA'09)*. San Francisco, CA. Nov 14-18, 2009. pp. 740-744.
6. Abraham, J., Kannampallil, T., and **Reddy, M.** (2009). Peripheral Activities during EMR Use in Emergency Care: A Case Study. In *Proc. of American Medical Informatics Association Fall Symposium (AMIA'09)*. San Francisco, CA. Nov 14-18, 2009. pp. 1-5.
7. Phelps, A. and **Reddy, M.** (2009). The Influence of Boundary Objects on Group Collaboration in Construction Project Teams. In *Proc. of ACM Conf. on Supporting Group Work (Group'09)*. Sanibel Island, FL. May 10-13, 2009. (acceptance rate: 36%)
8. Abraham, J. and **Reddy, M.** (2008). "Moving Patients Around: A Field Study of Coordination between Clinical and Non-Clinical Staff in Hospitals." In *Proceedings of ACM Conf on Computer Supported Cooperative Work (CSCW'08)*. San Diego, CA. Nov. 8-12, 2008. pp. 225-228. (acceptance rate: 23%)
9. Paul, S. **Reddy, M.**, Abraham, J., and DeFlitch, C. (2008). The Usefulness of Information and Communication Technologies in Crises Response. In *Proc. of American Medical Informatics Association Fall Symposium (AMIA'08)*. Washington, DC. Nov. 8-12, 2008. pp. 561-565.
10. **Reddy, M.**, Jansen, B.J., and Krishnappa, R. (2008). The Role of Communication in Collaborative Information Searching. In *Proc of American Society of Information Sciences and Technology (ASIST'08)*. Columbus, OH. Oct. 24-29, 2008.
11. Spence, P. and **Reddy, M.** (2007). The "Active" Gatekeeper in Collaborative Information Seeking Activities. In *Proc. of ACM Conf. on Supporting Group Work (Group'07)*. Sanibel Island, FL. Nov 4-7. pp. 277-280. (acceptance rate: 29%)
12. Zhu, S., J. Abraham, S. Paul, **M. Reddy**, J. Yen, M. Pfaff, and C. DeFlitch. (2007). R-CAST-MED: Applying Intelligent Agents to Support Emergency Medical Decision Making Teams. In *Proc. of the 11th Conference on Artificial Intelligence in Medicine (AIME 07)*. Amsterdam, Netherlands. July 7-11, 2007. pp. 34-41. (acceptance rate: 20%)
13. **Reddy, M.** and P. Spence. (2006). Finding Answers: Information Needs of a Multidisciplinary Patient Care Team in an Emergency Department. In *Proc. of American Medical Informatics Association Fall Symposium (AMIA'06)*. Washington, DC. Nov. 11 -15, 2006. pp. 649-653.
14. Spence, P., **Reddy, M.**, and Hall, R. (2005). A Survey of Collaborative Information Seeking Practices of Academic Researchers. In *Proc. of ACM Conf. on Supporting Group Work (Group'05)*. Sanibel Island, FL. Nov 6-10. pp. 85-88. (acceptance rate: 27%)
15. **Reddy, M.**, Agarwal, S., Hall, R., Brown, J., Woodard, T., and Trang, A. (2005). Warfighter-in-the-Loop: Mental Models in Minefield Detection. In *Proc. of Defense and Security Symposium 2005 (SPIE-DSS'05)*. Orlando, FL. Mar. 28 - Apr. 1. pp. 1050-1059.
16. Agarwal, S., **Reddy, M.**, Hall, R., Brown, J., Woodard, T., and Trang, A. (2005). Evaluating Operator Performance in Aided Airborne Target Detection. In *Proc. of Defense and Security Symposium 2005 (SPIE-DSS'05)*. Orlando, FL. Mar. 28 - Apr. 1. pp. 102-112.
17. Wilford, L., Hall, R., Hilgers, M, Leu, M, Hortenstine, J., Walker, C and **Reddy, M.** (2004). Training in Affectively Intense Virtual Environments. *World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education (E-Learn 2004)*. Washington, DC. Nov. 2-5.
18. **Reddy, M.**, Pratt, W., McDonald, D., and Shabot, M.M. (2003). Challenges to Physicians' Use of a Wireless Alert Pager. In *Proc. of American Medical Informatics Association Fall Symposium (AMIA'03)*. Washington, DC. Nov. 8 -12, 2003. pp. 544-548.

19. **Reddy, M.** and Dourish, P. (2002). A Finger on the Pulse: Temporal Rhythms and Information Seeking in Medical Work. In *Proc. of ACM Conf. on Computer Supported Cooperative Work (CSCW'02)*. New Orleans, LA. Nov. 16-20, 2002. pp. 344-353. (acceptance rate: 20%)
20. **Reddy, M.**, Pratt, W., Dourish, P., and Shabot, M.M. (2002). Asking Questions: Information Needs in a Surgical Intensive Care Unit. In *Proc. of American Medical Informatics Association Fall Symposium (AMIA'02)*. San Antonio TX. Nov 9-13, 2002. pp. 647-651.
21. **Reddy, M.**, Dourish, P., and Pratt, W. (2001). Coordinating Heterogeneous Work: Information and Representation in Medical Care. In *Proc. of European Conference on Computer Supported Cooperative Work (ECSCW'01)*. Bonn, Germany. September 16-20, 2001. pp. 239-258.
22. Gennari, J. & **Reddy, M.** (2000). Participatory design and an eligibility screening tool. In *Proc. of the American Medical Informatics Association Fall Symposium (AMIA'00)*. pp. 290-294.

### ***Book Chapters***

1. **Reddy, M.**, Jansen J., and Spence, P. (2010). Collaborative Information Behavior: Exploring Collaboration and Coordination during Information Seeking and Retrieval Activities. In Foster, Jonathan (ed). *Collaborative Information Behavior: User Engagement and Communication Sharing*.
2. **Reddy, M.**, and Dourish, P. (2007). Representation, Coordination, and Information Artifacts in Medical Work. In Ackerman, M., Erickson, T., Halverson, C., and Kellogg, W. (eds), *Resources, Co-Evolution, and Artifacts: Theory in CSCW*. New York: Kluwer. Pp. 167-192.
3. **Reddy, M.**, and Bradner, E. (2005). Multiple Perspectives: Evaluating Healthcare Information Systems in Collaborative Environments. In Anderson, J. and Aydin, C. (eds), *Evaluating Healthcare Information Systems: methods and applications 2<sup>nd</sup> ed.* New York: Springer.
4. Dourish, P., **Reddy, M.**, and Fisher, D. (2004). Temporality and Structure in Collaborative Work. In Heilesen (ed.), *Digital Presence: Knowledge and Design in New Media*. Roskilde University.

### **Guest Editor**

1. *Lead Editor*, Special Issue of the International Journal of Medical Informatics (IJMI) on "Supporting Collaboration in Healthcare Settings: The Role of Informatics." (Publish date 2011)
2. *Editorial Board Member*, Special Issue of Behaviour and Information Technology on "Medical Team Meetings: Utilising Technology to Enhance Communication, Collaboration and Decision-Making." (Publish date 2010)
3. *Co-Editor*, Special Issue of the Journal of Association of Information Systems (JAIS) on "Health Care IT...Process, People, and Patients." (Publish date 2010).

### ***Peer Reviewed Extended Abstracts, Workshop papers, and Panels***

1. **Reddy, M.** (Accepted). Handoffs during Patient Care Activities. Panel. *American Medical Informatics Association Fall Symposium (AMIA'11)*. Washington, DC. Oct 22-26, 2011.
2. Murphy, A., **Reddy, M.**, Xu, H., and Ringel, B. (2011) Exploring Collaborative Privacy Practices. Workshop on "Privacy for a Networked World": Bridging Theory and Design. ACM Conference on Human Factors (CHI'11). Vancouver, Canada. May 7, 2011.

3. Karunakaran, A. and **Reddy, M.** (2010). Narratives in Collaborative Information Seeking. Workshop on Collaborative Information Seeking: Towards New Theories and Applications. ACM Conference on Supporting Group Work (GROUP'10). Sanibel Island, FL. Nov. 7, 2010.
4. Karunakaran, A., Spence, P., and **Reddy, M.** (2010). Towards a model of Collaborative Information Behavior. Workshop on Collaborative Information Retrieval. ACM Conference on Computer Supported Cooperative Work (CSCW 2010). Savannah, GA. Feb. 7, 2010.
5. Paul, S, and **Reddy, M.** (2010). A Framework for Sensemaking in Collaborative Information Seeking. Workshop on Collaborative Information Retrieval. ACM Conference on Computer Supported Cooperative Work (CSCW 2010). Savannah, GA. Feb. 7, 2010.
6. Abraham, J. and **Reddy, M.** (2010). Meta-Coordination Activities: Maintaining Hospital Coordination. Workshop on CSCW Research in Healthcare: Past, Present, and Future. ACM Conference on Computer Supported Cooperative Work (CSCW 2010). Savannah, GA. Feb. 7, 2010.
7. **Reddy, M.** (2009). iSchool Health and Medical Research Initiatives and Opportunities. iConference 2009. Roundtable, Chapel Hill, NC. Feb 8-11, 2009.
8. Spence, P.R., and **Reddy, M.** (2008). Collaborative Knowledge Management: Identifying and Sharing Knowledge in Teams. IFIP WG 9.1 Workshop on Changing Work, Changing Technology. Computer Supported Cooperative Work 2008 (CSCW 2008). San Diego, CA. Nov. 8, 2008.
9. Abraham, J. and **Reddy, M.** (2008). Cross-level Interactions in Coordination Practices: A Field Study of Patient Transfers in a Hospital. IFIP WG 9.1 Workshop on Changing Work, Changing Technology. Computer Supported Cooperative Work 2008 (CSCW 2008). San Diego, CA. Nov. 8, 2008.
10. **Reddy, M.** and Jansen, B. (2008). Learning about Potential Users of Collaborative Information Retrieval Systems. Workshop on Collaborative Information Retrieval. Joint Conference on Digital Library 2008 (*JCDL'08*). Pittsburgh, PA. June 20, 2008.
11. Paul, S., **Reddy, M.**, and DeFlitch, C. (2008) Information and Communication Tools as Aids to Collaborative Sensemaking. *In Proc of CHI'08 Extended Abstracts*. Florence, Italy. April 5-10, 2008. pp. 3105-3110.
12. Paul, S., **Reddy, M.**, and DeFlitch, C. (2008). Collaborative Sensemaking: A Field Study in an Emergency Department. Sensemaking Workshop. *CHI 2008*. Florence, Italy. April 6, 2008.
13. **Reddy, M.** (2008). The Role of iSchools in Medical Informatics. iConference 2008. Roundtable. Los Angeles, CA. Feb. 28-Mar 1, 2008.
14. **Reddy, M.** (2004). Interdisciplinary Windows for Studying Information Systems in Healthcare: Challenges and Opportunities. Plenary Panel. *Information Technology in Healthcare: Socio-technical Approaches (ITHC'04)*. Portland, OR. Sept. 13-14, 2004.
15. **Reddy, M.** (2002). Sociotechnical Requirements Analysis for Clinical Systems. Plenary Panel. *American Medical Informatics Association Fall Symposium (AMIA'02)*. San Antonio TX. Nov 9-13, 2002.
16. **Reddy, M.** (2001). Sociotechnical Requirements for Healthcare Systems. Extended Abstract. *Information Technology in Health Care: Sociotechnical Approaches*. Rotterdam, Netherlands. September 6-7, 2001.
17. **Reddy, M.** (2001). Organizational Issues for Design of Medical Informatics Systems. Panel. *American Medical Informatics Association Fall Symposium*. Washington, D.C. November 3-7, 2001.

18. **Reddy, M.**, McDonald, D., and Pratt, W. (2000). The Promise and Problems of Wireless Adoption in a Teaching Hospital. Workshop on Technologies that cross boundaries: exploring the gap between wireless networks, bits, interfaces and mobile work practices. ACM Conference on Computer-Supported Cooperative Work, Philadelphia, PA, December 2000.

### ***Workshop Organization***

1. Reddy, M. and L. Mamykina. (2011) Workshop on Interactive Systems in Healthcare 2011 (WISH 2011). Washington, DC. October 21, 2011.
2. Xu, Heng, **Reddy, M.**, and Zhang, L. (2011). Workshop on Collaborative Privacy Practices in Social Media. ACM Conference on Computer Supported Cooperative Work (CSCW 2011). Hangzhou, China. March 20, 2011.
3. Shah, Chirag, **Reddy, M.**, and Twidale, M. (2010). Collaborative Information Seeking: Toward New Theories and Applications. ACM Conference on Supporting Group Work 2009. Sanibel Island, FL. Nov. 7-10, 2010.
4. Nembhard, H., Brannon, D., DeFlicht, C., DeOnna, J., and **Reddy, M.** (2010). Center for Integrated Healthcare Delivery Systems 2010 Invited Workshop. The Pennsylvania State University, University Park, PA. March 29, 2010.
5. **Reddy, M.**, Bardram, J., and Gorman, P. (2010). Workshop on CSCW Research in Healthcare: Past, Present, and Future. ACM Conference on Computer Supported Cooperative Work (CSCW 2010). Savannah, GA. Feb. 7, 2010.
6. **Reddy, M.**, Paul, S., Jansen, J., Foster, J., and Twidale, M. (2009). Workshop on Collaborative Information Behavior. ACM Conference on Supporting Group Work 2009. Sanibel Island, FL. May 10-13, 2009.
7. Goggins, S., Floyd, I., Grudin, J., Sawyer, S., Dabbish, L., **Reddy, M.**, and Ribes, D. (2009). Workshop on Socio-Technical Research in the iSchools. iConference 2009. Chapel Hill, NC. Feb 11, 2009.

### ***Invited Presentations and Panels***

1. "Importance of Collaboration in Health Infrastructure". Keynote Speaker. Infrastructures in Healthcare: Global health workshop in Copenhagen 2011. Copenhagen, Denmark. June 23-24, 2011
2. "Design and Usability of Systems". Invited Panelist. Committee on Patient Safety and Health Information Technology. Institute of Medicine of the National Academies. Washington, DC. Dec. 14. 2010.
3. "Grand Challenges and New Frontiers". Closing Panel. ACM Conference on Supporting Group Work (GROUP'10). Sanibel Island, FL. November. 10, 2010.
4. "Collaboration, Coordination, and Workforce Training in Health Informatics". Invited Speaker. Workforce Education and Development Symposium. State College, PA. Oct. 1, 2010.
5. "Grand Challenges for IST". Panel. IST Graduate Symposium. University Park, PA. February 19, 2010.
6. "Designing Health Information Technologies: A Socio-Technical Perspective". Invited Speaker. Health Informatics Grand Rounds and Bartels Health Informatics Speakers Series. School of Information and College of Medicine. University of Michigan, Ann Arbor, MI. Dec. 11, 2009.

7. “The Use of Qualitative Methods in Investigating Patient-care Teams and Health IT”. Invited Speaker. The Methodology Center. College of Health and Human Development. University Park, PA. September 17, 2009.
8. “Publishing in Medical Informatics Journals: The Interdisciplinary Challenges”. Keynote Presentation. SIG-Health Workshop. Americas Conference on Information Systems (AMCIS 2009). San Francisco, CA. August 6, 2009.
9. “Collaboration in Teams”. Presentation. Biomedical Informatics, and Translational Research Mini-Conference. Windber Research Institute. Windber, PA. May 5, 2009.
10. “Success in Healthcare Engineering Delivery”. Panel. 2009 Invited Workshop on Healthcare Engineering Delivery. University Park, PA. April 17, 2009.
11. “Designing Health Information Technologies: A Socio-Technical Perspective”. Invited Presentation. Penn State University Health Sciences Council. University Park, PA. April 22, 2008.
12. “Future of the iConference”. iConference 2008. Closing Panel. Los Angeles, CA. Feb. 28-Mar 1, 2008.
13. “Collaborative Information Seeking and Decision-Making in Information Intensive Clinical Environments”. Invited Presentation. Penn State Bio & Medical Informatics Retreat. University Park, PA. May 11, 2007.
14. “Health Information Technologies: Opportunities and Challenges”. Invited Presentation. Pennsylvania Technical Assistance Program. PSU Wilkes-Barre, April 26, 2007.
15. “The Role of the Human in Situational Assessment”. Invited Presentation. Defense Treat Reduction Agency’s Workshop on Biological Threats. Ft. Belvoir, VA. July 14-15, 2006.
16. “Electronic Medical Records: Opportunities and Challenges”. Invited Presentation. Pennsylvania Summit on Technology and Medicine. Hershey, PA. May 12, 2006.
17. “Bridging Cultures: From Academia to the Real World. Presentation”. GatewayCHI. St. Louis, MO. March 24, 2005.
18. “Qualitative Assessments of Warfighter-in-the-Loop Experiments”. Presentation. Night Visions Electronics Sensor Directorate. Ft. Belvoir, VA. Oct. 18-19, 2004.
19. “CSCW and Medical Informatics: Opportunities and Challenges”. Presentation. School of Management and Information Systems. April 30, 2004.
20. “Collaborative Information Seeking: Supporting Organizational Information Needs”. Presentation. Center for Research on Information Technology and Organizations (CRITO) annual Industry Advisory Board Meeting. Costa Mesa, CA. June 12-13, 2003.
21. “Collaborative Information Seeking: Information Work in Hospitals”. Student Paper. *Human-Computer Interaction Consortium 2002 Winter Workshop*. Snow Mountain, CO. January 30- February 3, 2002.
22. “Challenges to Physicians' use of a Wireless Alert Pager”. Invited Speaker. Department of Information Systems. University of Maryland, Baltimore County. November 2001.

### ***Posters and Technical Reports***

1. Paul, S., **Reddy, M.**, Abraham, J. (2007). Collaborative Sensemaking during Emergency Crises Response: How do ICTs help? *Proceedings of the 2007 ACM Conference on Supporting Group Work (GROUP’07)*, Sanibel Island, FL. November, 2007.
2. Abraham, J., and **Reddy, M.** (2007). Quality of Healthcare Websites: A Comparison of a General-Purpose vs. Domain-Specific Search Engine. *Proceedings of the American Medical Informatics Association Fall Symposium*. Chicago, IL. November, 2007.

3. **Reddy, M.** (2002). Collaborative Information Seeking: Supporting Organizational Information Needs. Poster. Center for Research on Information Technology and Organizations (CRITO) Consortium Meeting. Newport Beach, June 20, 2002.
4. **Reddy, M.** (2002). Collaborative Information Seeking. Poster, Institute for Software Research Annual Forum. Irvine, Ca. June 18, 2002.
5. Carpenter, N., **Reddy, M.**, Pratt, W. (2001). Transparent View Interface: Supporting MEDLINE Searches. Technical Report 01-48. Information and Computer Science, University of California, Irvine.
6. **Reddy, M.**, Pratt, W., Shabot, M.M. and McDonald, D. (2001). Challenges to Physicians' use of a Wireless Alert Pager. Technical Report FX-PAL-TR01-014. Fuji-Xerox, Palo Alto, Ca.
7. **Reddy, M.**, Seeraty, C., Lin, T-W. and Pratt, W. (2000). Effects of Computer-Based Patient Records on Physician-Patient Interactions: Physicians' Perspectives. Poster, *Proceedings of the American Medical Informatics Association Fall Symposium*. Los Angeles, CA, November 2000. pp.1114.
8. **Reddy, M.**, Schenkel, M., and Eggimann, F. (1997). Handwriting Recognition of Off-line Scanned Data. Technical Report 9701, Institute for Signal and Information Processing, Swiss Federal Institute of Technology, Zurich.

## **FUNDED GRANTS**

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**Total: \$3,077,336/Individual Share: \$1,360,342**

### ***External (\$2,972,136/\$1,292,642)***

1. **NSF/DIIP** – “I/UCRC for Center for Healthcare Organization Transformation.” Co-PI (20%). Period 2011-2016. Amount: \$1,200,000.
2. **NSF/CISE** - HCC: “REU: HCC: “Small: Collaborative Privacy Practices: Exploring Privacy in Information Intensive Environments” PI (50%). (supplement to HCC Privacy Grant) \$8,000.
3. **NSF/CISE** - HCC: “Small: Collaborative Privacy Practices: Exploring Privacy in Information Intensive Environments.” PI (50%). Period: 2010-2013. Amount: \$499,981.
4. **The Commonwealth Fund**. “Hospital-to-Hospital Health Information Technology Partnership: Developing a New Model for HIT Adoption and Diffusion in Rural Settings.” PI (40%). Period: 2010-2011. Amount: \$240,754.
5. **NSF/CISE** - HCC: “REU: Collaborative Information Behavior: Exploring and Supporting Collaboration during Information Seeking and Retrieval Activities” PI (100%). (supplement to CAREER Grant) \$16,000.
6. **NSF/CISE** – HCC: “AMIA Doctoral Consortium 2010” PI (100%). Period: 2010. Amount: \$17,660.
7. **NSF**. Planning Grant: I/UCRC for Center for Healthcare Organization Transformation. Co-PI (20%). Period: 2010. Amount: \$10,000.
8. **Lockheed Martin Corporation University Partnership**. R-CAST-MED: Supporting Collaboration and Decision-Making in Multidisciplinary Patient Care Teams. PI (40%) Period: 2010. Amount: \$175,000.
9. **NSF/CISE** - HCC: “CAREER: Collaborative Information Behavior: Exploring and Supporting Collaboration during Information Seeking and Retrieval Activities. PI (100%). Period 2009-2014. Amount: \$535,475.
10. **NSF/CISE** - HCC: “AMIA Doctoral Consortium” PI (100%). Period: 2008. Amount: \$6,130.

11. **NSF/CISE - HCC**: “REU: Identifying Triggers for Collaborative Information Behavior: A Field Study of Rural Healthcare IT Teams” PI (50%). Period: 2008. Amount: \$12,000.
12. **NSF/CISE - HCC**: “SGER: Identifying Triggers for Collaborative Information Behavior: A Field Study of Rural Healthcare IT Teams” PI (75%). Period: 2007-2008. Amount: \$75,940.
13. **Solars Corporation**, “DPM Modeling Tool.” Co-PI (10%). Period 2006-2008. Amount: \$411,180.
14. **Night Vision Electronics Sensor Directorate**. “Evaluation of Human in the Loop Performance for Airborne Mine and Minefield Detection.” Co-PI (30%) . Period: 2004-2005. Amount: \$70,000.

### ***Internal (\$105,200/\$67,700)***

1. **Penn State Office of Vice Provost for Research**. “Supporting Multi-Team Cognition /Collaboration in Broad-Based Crisis Management.” PI (50%). Period: 2006-2007. Amount: \$75,000.
2. **Missouri Research Board**. “Collaborative Information Seeking.” PI (100%). Period: 2004-2005. Amount: \$30,200.

### **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

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1. Association of Computing Machinery (ACM)
2. American Medical Informatics Association (AMIA)

### **PROFESSIONAL ACTIVITIES**

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#### **Journal Reviews**

1. Applied Clinical Informatics\*
2. Behaviour and Information Technology\*
3. Communications of the Association of Information Systems
4. E-Service Journal
5. European Journal of Information Systems
6. Health Informatics Journal
7. IEEE Computers
8. IEEE Transactions on Knowledge and Discovery Engineering
9. Information Sciences
10. Information Society\*
11. Information Systems Management
12. Information Systems Research
13. International Journal of Healthcare Technology and Management
14. International Journal of Human-Computer Studies
15. International Journal of Human-Computer Interaction
16. International Journal of Medical Informatics\*
17. International Medical Informatics Association Yearbook
18. Interacting with Computers\*
19. Journal of American Medical Informatics Association
20. Journal of Association of Information Sciences and Technology
21. Journal of Biomedical Informatics\*
22. Journal of Computer Supported Cooperative Work\*
23. Journal of Information Processing and Management\*
24. Journal of Information, Technology, and People\*

25. Journal of Medical Systems\*
26. Methods of Information in Medicine
27. Quality and Safety in Healthcare\*

\*- Denotes multiple reviews for the journal

### Conference Reviewer

1. ACM Conf on Computer Supported Cooperative Work (CSCW) (2004, 2006, 2008)
2. ACM Conference on Supporting Group Work (GROUP) (2001, 2005, 2007)
3. ACM Conference on Human Factors in Computing System (CHI) (2005, 2006, 2007, 2008, 2009, 2010, 2011)
4. ACM Conference on Ubiquitous Computing (UBICOMP) (2006, 2011)
5. Americas Conference on Information Systems (AMCIS) (2002, 2006, 2010)
6. American Medical Informatics Association (AMIA) (2002, 2003, 2005, 2006, 2007, 2008)
7. Graphic Interface (2005)
8. European Conference on Computer Supported Cooperative Work (ECSCW) (2009)
9. Hawaii International Conference on System Sciences (HICCS) (2005, 2006, 2010)
10. International Conference on Information Systems (ICIS) (2006)
11. Information Technology in Healthcare: Sociotechnical Approaches International Conference (ITHC) (2007, 2010)
12. International Health (Medical) Informatics Congress (Medinfo) (2004, 2007)
13. Pervasive 2010: The Eighth International Conference on Pervasive Computing (2010)

### Book Reviewer

1. Planning, Implementing and Analyzing Electronic Health Records. Health Administration Press. January, 2009. (Textbook review for publisher)
2. Information Systems for Health Care Enterprises. Health Administration Press. March, 2006. (Textbook review for publisher)
3. Handbook of Evaluation Methods for Health Informatics. Academic Press. Book Review for Journal of Information Processing and Management. (With Joanna Abraham)
4. Human-Computer Interaction: Designing Effective Organizational Information Systems. Wiley and sons. July, 2003. (Textbook review for publisher)

### Conference Service

1. *Associate Chair, Program Committee.* ACM Conference On Computer Supported Cooperative Work 2012 (CSCW'12). Seattle, WA. Feb. 11-15, 2012.
2. *Member, Program Committee.* ACM International Health Informatics Symposium (IHI 2011). Miami, FL. Jan. 28-30, 2012.
3. *Member, Scientific Program Committee.* The American Medical Informatics Association's Fall Symposium. Washington, DC. Oct. 22-26., 2011.
4. *Member, Program Committee.* The 5<sup>th</sup> International ICST Conference on Pervasive Computing Technologies in Healthcare. Dublin, Ireland. May 23-26, 2011.
5. *Member, Program Committee.* European Conference on Computer Supported Cooperative Work 2011 (ECSCW'11). Aarhus, Denmark. September 24-28, 2011.
6. *Member, Awards Committee.* ACM Conference On Computer Supported Cooperative Work 2011 (CSCW'11). Hangzhou, China. March 19-23, 2011.
7. *Associate Chair, Program Committee.* ACM Conference On Computer Supported Cooperative Work 2011 (CSCW'11). Hangzhou, China. March 19-23, 2011.

8. *Member, Program Committee.* ACM International Health Informatics Symposium (IHI 2010). Washington, DC. November 11-12, 2010.
9. *Program Co-Chair.* ACM Conference on Supporting Group Work 2010. Sanibel Island, FL. November 6-10, 2010.
10. *Member,* AMIA Student Paper Competition Committee (American Medical Informatics Association) 2011, 2010, 2009, 2008, 2007.
11. Diane E. Forsythe Award Committee (American Medical Informatics Association) (*Member* 2011, 2010, 2009, 2004, 2003) (*Co-chair* – 2008, 2005) (*Chair* – 2007, 2006).
12. *Chair,* Doctorial Consortium on Sociotechnical Issues in Medical Informatics. (American Medical Informatics Association) 2011, 2010, 2008, 2006, 2005.
13. *Member, Steering Committee.* Workshop on Information Systems in Healthcare (WISH). Atlanta, GA. April 10-11, 2010.
14. *Associate Chair, Program Committee & Session Chair,* ACM Conference on Computer Supported Cooperative Work 2010 (CSCW'10). Savannah, GA. Feb 6-10, 2010.
15. *Member, Program Committee.* 12<sup>th</sup> IFIP Conference on Human-Computer Interaction (INTERACT 2009). Uppsala, Sweden. August 24-28, 2009.
16. *Session Chair,* ACM Conference on Supporting Group Work 2009. Sanibel Island, FL. May 9-13, 2009.
17. *Workshop Co-Chair and Program Committee Member,* ACM Conference on Supporting Group Work 2009. Sanibel Island, FL. May 9-13, 2009.
18. *Co-Chair, Papers, Roundtables, and Wildcards.* iConference 2009: iSociety: research, education, engagement. Chapel Hill, NC. Feb. 8-11, 2009.
19. *Faculty Mentor, Doctorial Colloquium.* iConference 2009: iSociety: research, education, engagement. Chapel Hill, NC. Feb.7, 2009.
20. *Publicity Chair, Organizing Committee.* ACM Conference on Computer Supported Cooperative Work, 2008. San Diego, CA. Nov 8-12. 2008
21. *Member, Program Committee.* ACM Conference on Supporting Group Work, 2007. Sanibel Island, FL. Nov 4-7. 2007
22. *Session Chair,* American Medical Informatics Association's Fall Symposium. Washington, DC. Oct. 22-26, 2005.
23. *Committee Member, Program and Organizing Committees,* Information Technology in Healthcare: Sociotechnical Approaches Second International Conference (ITHC 2004). Portland, OR. Sept. 13-14, 2004.
24. *Publicity Chair, Organizing Committee.* ACM Conference on Computer Supported Cooperative Work (CSCW '04). Chicago, IL. Nov. 6-10, 2004.
25. *Publicity Chair, Organizing Committee.* ACM Conference on Computer Supported Cooperative Work (CSCW '02). New Orleans, Louisiana. Nov. 16-20, 2002.

### **Professional Service**

1. *Member,* National Science Foundation. Human-Centered Computing (HCC) Review Panel, December, 2010.
2. *Reviewer,* 2011 FONDECYT National Research Funding Competition. Superior Council of the National Fund for Scientific & Technological Development. Chile, 2010.
3. *Stage 1 Reviewer,* National Institutes of Health, American Recovery and Reinvestment Act (ARRA) RFA-OD-09-010 ZRG1 HDM-D (58) R - ARRA RC4 Sustainable Community-linked Infrastructure, February, 2010.

4. *Member, Special Emphasis Panel (SEP)*, Agency for Health Care Research and Quality Review of Office of National Coordinator (ONC) FOA OC-HIT-10-001 Curriculum Centers. Feb. 12, 2010.
5. *Member, Special Emphasis Panel (SEP)*, National Institute for Health, PAR-08-212. “Methodology and Measurement in the Behavioral and Social Sciences” Washington, DC. October 23, 2009.
6. *Stage 1 Reviewer*, National Institutes of Health ARRA Challenge Grant Program, 2009.
7. *Ad-hoc Reviewer*, National Science Foundation, CISE, 2009.
8. *Member*, National Science Foundation. Human-Centered Computing (HCC) Review Panel, April, 2009.
9. *Member, Special Emphasis Panel (SEP)*, National Institute for Health, PAR-08-212. “Methodology and Measurement in the Behavioral and Social Sciences” Washington, DC. February 20, 2009.
10. Organizational and Social Issues, International Medical Informatics Association (*Chair* - 2008-2011) (*Co-Chair* 2007-2008).
11. *Member, Special Emphasis Panel (SEP)*, Agency for Health Care Research and Quality, FOA 07-007 “Ambulatory Safety and Quality: Enabling Patient-Centered Care through Health IT” Rockville, MD, June 14-15, 2007.

## University Service

### The Pennsylvania State University (2005-Present)

1. *Member*, College of Information Sciences and Technology. Dean’s Advisory Council. 2010-Present.
2. *Member*, College of Information Sciences and Technology. Graduate Advisory Committee. 2011-Present, 2009-2010.
3. *Chair*, College of Information Sciences and Technology. Graduate Advisory Committee. 2010-2011.
4. *Member*, College of Information Sciences and Technology. Graduate Recruiting Committee. 2010-Present.
5. *Member*, Penn State University. Graduate Council Subcommittee on New and Revised Programs and Courses. 2010-Present.
6. *Founding Member*, Penn State University’s Center for Integrated Health Care Delivery Systems (CIHDS). 2008-Present.
7. *Co-Section Leader* – Biomedical Informatics section, Penn State University’s Clinical Transition Sciences Award Grant Proposal. 2008.
8. *Grant Reviewer* - Clinical Transition Sciences Award Demonstration Project Proposals. 2008
9. *Committee Member (Organizing)*. 2<sup>nd</sup> PSU Bio and Medical Informatics Research Retreat. Hershey, PA. January 22, 2008.
10. *Member*. College of Information Sciences and Technology. Distinguished Lecture Series Committee. 2008-2009.
11. *Member*, College of Information Sciences and Technology. Diversity Task Force. 2007-2008.
12. *Member*, College of Information Sciences and Technology. Multi-Fixed Term Faculty Subcommittee. 2007.
13. *Member*, College of Information Sciences and Technology. SRA Faculty Recruitment Committee. 2006.
14. *Member*, School of Information Sciences and Technology. Faculty Advisory Council. 2005-2006.

15. *Member*, School of Information Sciences and Technology. Faculty Recruitment Committee. 2005 (Cancelled).

### **Missouri University of Sciences and Technology (2003-2005)**

1. *Poster Judge*, Undergraduate Research Symposium. 2005.
2. *Member*, School of Management and Information Systems. Business Administration Faculty Recruitment Committee. 2004.
3. *Member*, School of Management and Information Systems. Business Administration Department Chairperson Recruitment Committee. 2004.
4. *Member*, Institutional Review Board. 2004.

### **TEACHING EXPERIENCE**

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#### **College of Information Sciences and Technology, The Pennsylvania State University.**

1. Introduction to Medical Informatics (IST 597C/497I) Spring'06, Spring'07  
Graduate and undergraduate course designed to introduce students to the field of medical informatics. In the course, students learn about the design, use, and evaluation of healthcare systems.
2. Information and Organizations (IST 301) Fall'05, Fall'06, Fall'07, Fall'08, Spring'09, Spring '10  
Undergraduate course for junior level students. The course introduces them to the nature and structure of organizations, how information flows in organizations, and various ways to analyze organizations.
3. Computer Supported Cooperative Work (IST 525) Fall'09, Fall 2010  
Graduate course introducing students to the field of Computer Supported Cooperative Work (CSCW). In the course, students learn about both the technical and social aspects of collaboration in a variety of different domains.

#### **Business and Information Technology, Missouri University of Science and Technology**

1. Social Informatics (IST 401A) Fall'04  
Graduate level course designed to introduce students to empirical studies examining the uses and consequences of technologies in organizations and society. In the course, students learn about interactions between technical and social components in a socio-technical system.
2. Capstone Seminar (SM&IS 397) Spring'04, Spring'05  
Senior level course that all students in SM&IS must take before graduating. The course introduces them to business entrepreneurship by putting them in student run companies. Each company, in the course of a semester, must identify a product/service to sell, create a business plan, get a loan, and execute the plan.
3. Human-Computer Interaction (IST 385) Fall'03, Fall'04, Spring'05  
Upper division and graduate level course designed to introduce students to different ways that people interact with technology with a particular focus on interfaces. In the course, students learn about various techniques for understanding user needs, interface design and prototyping, and interface evaluation.

**STUDENTS SUPERVISED**

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**Graduate Students****PhD Committee Chair**

1. Patricia Spence (ABD, expected graduation: 2011)
2. Nathan McNeese (expected graduation: 2015)
3. Allison Murphy (expected graduation: 2015)
4. Sharoda Paul (Graduated: Spring, 2010. Title: "Understanding Together: Sensemaking in Collaborative Information Seeking")
5. Joanna Abraham (Graduated: Spring, 2010. Title: "Meta-Coordination Activities: Exploring Articulation Work in Hospitals")
6. Shizhuo Zhu (Graduated: Winter, 2010, Title: Hypothesis-Driven Story Building: Counteracting Human Cognitive Biases to Improve Medical Diagnosis Support) (Co-Chair)

**PhD Committee Member****Penn State**

1. Sonali Kumar (External Member, Architectural Engineering, expected graduation: 2012)
2. Jing Chong (IST, Graduated: Summer, 2010)
3. Helena Mentis (IST, Graduated: Spring, 2010)
4. Andreas Phelps (External committee member, Architectural Engineering, Graduated: Fall 2009)
5. Shuang Sun (IST, Graduated: Summer 2006)

**External**

1. Kim Unertl (External committee member, Vanderbilt University, Department of Biomedical Informatics. Graduated: Spring 2010)
2. Saira Haque (External committee member, Syracuse University, School of Information Studies. Graduated Spring 2010)
3. LA Hanmar (External Examiner, University of Cape Town, Information Systems, Graduated: 2009)

**Master's Thesis Chair**

1. Arvind Karunakaran
2. Dheepak Ramaswamy (Graduated. Spring, 2010. Title: AchieveTogether.com: Development & Evaluation of a Web 2.0 Application for Weight Loss and Diabetes Prevention) (co-chair)
3. Yusuf Raza (Graduated. Fall, 2009. Title: The Effect of Team Experience on Collaborative Information Seeking Behavior of Students)
4. Mary Kelly (Graduated. Fall, 2007. Title: IT Outsourcing in Rural Communities: A Case Study of Hospital-to-Hospital Partnerships)
5. Patricia Spence (Graduated Fall, 2005. Title: Collaborative Information Seeking: A Study of A Patient Care Team in the Emergency Department)
6. John Brown (Graduated. Summer, 2005. Title: Mental Models in Airborne Landmine Detection )
7. Rashmi Krishnappa (Graduated. Summer, 2005. Title: Multi-User Search Engine (MUSE): Supporting Collaborative Information Seeking and Retrieval )

**Master's Thesis Committee Member**

1. John Sullivan (Graduated. Winter, 2004. Title: Iterative Usability Testing in the Development of a Learning Technology System for Teaching Geographic Information Systems within a Civil Engineering Curriculum)
2. Lawrence Wilford (Graduated. Spring, 2004. Title: Learning in Affectively Intense Virtual Environments)

**Post-Doctoral Researcher**

1. Shizhuo Zhu (2010-2011). R-CAST-MED.

**Undergraduate Students****Research Projects**

1. Kelsey Bailey (IST, HHP Project, Fall 2010)
2. Ben Ringel (IST, NSF CAREER REU, Fall, 2010)
3. Michael Cwenar (IST, NSF CAREER REU, Summer, Fall 2010)
4. Justin DeAcosta (IST, R-CAST-MED, Summer, Fall 2010)
5. Kevin Zhang (IST, NSF SGER REU, FS'08)
6. Ryan Richards (IST, AchieveTogether Project, Summer 2008)
7. Michael DeLorenza (IST, NSF SGER REU, Summer 2008)
8. Justin Brown (IST, AchieveTogether Project, FS'07, SS'08)
9. Matt Prindible (IST SURF, R-CAST-MED SS'06, FS'07)
10. John Warmbrodt (NSF: Innovation Information Infrastructure WS'05)
11. Charlene Baker (NSF: Innovation Information Infrastructure SS'04, FS'04)
12. Matt Bleckman (NSF: Innovation Information Infrastructure WS'04)

**Independent Study**

1. Corey Ernst (HCI Prototyping, FS'04 Undergraduate)

**Visitors**

1. Troels Monsted – PhD Student, University of Copenhagen (Sept 2010-March 2011)