

# Diane M. Strong

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## Education:

- Ph.D. **Carnegie Mellon University**, December 1988  
**Graduate School of Industrial Administration (now Tepper School of Business)**  
Dissertation: "Design and Evaluation of Information Handling Processes"  
Major: Information Systems; Minors: Statistics, Operations Management
- M.S. **Carnegie Mellon University**, May 1983  
**Graduate School of Industrial Administration (now Tepper School of Business)**  
Major: Systems Sciences
- M.S. **New Jersey Institute of Technology**, May 1978  
Major: Computer and Information Science
- B.S. **University of South Dakota**, May 1974, with Magna Cum Laude Honors  
Majors: Computer Science, Mathematics

## Research and Teaching Experience:

- 8/95- **Worcester Polytechnic Institute, School of Business.**  
Professor, 7/2009-  
Associate Professor, 7/2000-6/2009  
Assistant Professor, 7/1996-6/2000, Visiting Assistant Professor, 8/1995-5/1996.

### Research Interests:

- Healthcare Information Systems and Technology
- Enterprise Systems, and their use in organizations
- Data and Information Quality, Data Analytics
- Affordances and Critical Realism
- Task-Technology Fit, including misfits and work-arounds

### Courses Taught:

- Business Intelligence (MBA and MS)
- Enterprise Systems (MBA and MS), including web-only section
- Information and Decision Support Systems (MBA and MS), including web-only section
- Database Applications Development (MBA and MS)
- Business Data Management (BS)
- Managing the IS Function (BS)
- Information Systems Management (BS)

WPI Committees and Service:

- Search Committee, Dean of Graduate Studies, 2014
- Program Committee and Associate Director, Data Science Program, 2013-
- Committee to Design an M.S. in Data Science, 2013
- Search Committee, Richard T. Whitcomb Professorship in Biochemistry, 2012-2014
- Search Committee, School of Business Dean, 2009-2010
- Search Committee, Humanities and Arts Department Head, 2008-09
- Research Development Council, 2007
- Search Committee, Associate Provost for Research and Dean of Graduate Studies, Spring 2007
- Community Council, 2006-2008
- Commission C: Research and Graduate Education, 2005-2007
- Committee on Graduate Studies and Research (CGSR), 2004-2007
- Information Technology Advisory Committee, 2002-2003
- Committee on Academic Operations (CAO), 2001-2003, Chair, B and D terms 2002-2003
- Search Committee, Mathematical Sciences Department Head, 2002
- New Faculty Mentor, 2000, 2002, 2004, 2006, 2007
- Educational Development Council, 1998-2001, Chair, 1999-2001
- Information Technology Minor Proposal Committee, Summer 1996

School of Business Committees and Service:

- Undergraduate Policy and Curriculum Committee, 2013-, Chair, 2013-
- FSB/CPE Task Force, 2014
- AACSB Accreditation Task Force, 2013
- PhD Program Task Force, 2011-2012
- Faculty Performance Task Force, 2010
- Undergraduate Policy and Curriculum Committee, 2007-2010, Chair, 2008-2009
- School of Business Task Force, Chair, 2008
- Department Tenure Committee, 2005-2007, Chair 2006-2007
- Beta Gamma Sigma Business and Management Honor Society, Chapter Vice-President 2003-
- Graduate Policy and Curriculum Committee, 2002-2003
- Director, MIS Program, 2001-
- AACSB Curriculum Task Force, Chair, 1999-2002
- AACSB Instructional Resources Task Force, 1999-2002
- Search Committee, MIS Faculty, 1998-2003, 2005
- Undergraduate Policy and Curriculum Committee, 1997-2000, Chair, 1998-1999
- Search Committee, Accounting and Finance Faculty, Spring 1998
- Sigma Beta Delta Business and Management Honor Society, Chapter Vice-President 1997-2003
- Faculty Evaluation Task Force, 1997-1998
- MIS Curriculum Development Committee, 1996-1997

9/87-8/95

**Boston University, School of Management.**

Assistant Professor of Management Information Systems.

Courses Taught:

- Information Technology Doctoral Seminar (DBA)
- Information Processing and Management (MBA)
- Data Management (MS)
- File Systems and Data Structures (MS)
- Data Management (BS)
- Computers and Information Systems (BS)

### Committees and Service:

- Undergraduate Program Development Committee, Chair, 1989-1990, Member, 1988-1994  
Developed and launched a new undergraduate management curriculum.
  - MIS Department, Undergraduate Coordinator, 1992-1994  
Developed and launched a revised undergraduate MIS concentration.
  - Academic Conduct Committee, Member, 1989-1991
- 5/82-8/87 **Carnegie Mellon University, Graduate School of Industrial Administration.**
- Research Assistant to Professor Steven Miller, 1984-1987.
  - Research Assistant to Professor Charles Kriebel, Summer 1982.
- 9/76-5/78 **New Jersey Institute of Technology, Computer and Information Science Department.**
- Instructor, Operating System Principles.
  - Instructor, Programming with COBOL.
  - Instructor, Introductory computer programming (with FORTRAN).
  - Lab assistant, Minicomputer lab.
- 9/73-5/74 **University of South Dakota, Mathematics Department.**
- Conducted mathematics help sessions.

### Research Affiliations:

- 5/09- **Healthcare Delivery Institute at WPI**  
(started as Center for eHealth Innovation and Process Transformation (CeHIPT))  
Founding Member and Faculty Executive Council Member, 2009-  
Center Director, 2009-2010.
- 9/00-9/06 **Information Technology Research Centers (ITRCs),**  
WPI, Department of Management.
- 9/93-9/99 **Total Data Quality Management (TDQM) Research Program,**  
Massachusetts Institute of Technology, Sloan School of Management.
- 9/89-12/90 **Manufacturing Roundtable,** Boston University, School of Management.

### Industrial Experience:

- 6/78-6/81 **Data General Corporation,** Management Science Analyst.  
Worked in the corporate management science department as an internal consultant.
- 5/74-8/76 **Morris County Data Processing,** Systems Analyst.  
Designed, developed, and implemented accounting and financial applications.

### Publications and Presentations:

#### Journal Articles:

- Wang, L., P.C. Pedersen, D.M. Strong, B. Tulu, E. Agu, and R. Ignatz, "Smartphone-Based Wound Assessment System for Patients With Diabetes", *IEEE Trans. on Biomedical Engineering*, accepted on September, 2014.
- Strong, D. M., O. Volkoff, S. A. Johnson, L. R. Pelletier, B. Tulu, I. Bar-On, J. Trudel, and L. Garber, "A Theory of Organization-EHR Affordance Actualization", *Journal of the Association for Information Systems*, Vol. 15, No. 2, February 2014, pp. 53-85.

- Volkoff, O. and D. M. Strong, "Critical Realism and Affordances: Theorizing IT-Associated Organizational Change Processes", *MIS Quarterly*, Vol. 37, No. 3, September 2013, pp. 819-834.
- Strong, D. M. and O. Volkoff, "Understanding Organization – Enterprise System Fit: A Path to Theorizing the IT Artifact", *MIS Quarterly*, Vol. 34, No. 4, December 2010, pp. 731-756.
- Djamasbi, S., D. M. Strong, and M. T. Dishaw "Affect and Acceptance: Examining the Effects of Positive Mood on the Technology Acceptance Model", *Decision Support Systems*, Vol. 48, No. 2, January 2010, pp. 383-394.
- Mistry, J. J., D. M. Strong, and S. A. Johnson, "The Use of ERP-based Exercises in Management Curricula", *IADIS International Journal on Computer Science and Information Systems*, Vol. 4, No. 3, Autumn 2009, pp. 20-38.
- Djamasbi, S. and D. M. Strong, "The Effect of Positive Mood on Intention to Use Computerized Decision Aids", *Information & Management*, Vol. 45, No. 1, January 2008, pp. 43-51.
- Volkoff, O., D. M. Strong and M. B. Elmes, "Technological Embeddedness and Organizational Change", *Organization Science*, Vol. 18, No. 5, September-October 2007, pp. 832-848.
- Strong, D. M., M. T. Dishaw, and D. B. Bandy, "Extending Task Technology Fit With Computer Self-Efficacy", *DATA BASE*, Vol. 37, No. 2/3, Spring/Summer, 2006, pp. 96-107.
- Strong, D. M., J. Fedorowicz, J. Sager, G. Stewart and E. Watson, "Teaching with Enterprise Systems", *Communications of the Association for Information Systems*, Vol. 17, May 2006, pp. 728-755.
- Volkoff, O., D. M. Strong, and M. B. Elmes, "Understanding Enterprise Systems-enabled Integration", *European Journal of Information Systems*, Vol. 14, No. 2, June 2005, pp. 110-120.
- Elmes, M. B., D. M. Strong, and O. Volkoff, "Panoptic Empowerment and Reflective Conformity in Enterprise Systems-Enabled Organizations", *Information and Organization*, Vol. 15, No. 1, January 2005, pp. 1-37.
- Volkoff, O., M. B. Elmes, and D. M. Strong, "Enterprise Systems, Knowledge Transfer and Power Users", *Journal of Strategic Information Systems*, Special Issue on Enterprise Systems, Vol. 13, No. 4, December 2004, pp. 279-304.
- Strong, D. M., S. A. Johnson, and J. J. Mistry, "Integrating Enterprise Decision-Making Modules into Undergraduate Management and Industrial Engineering Curricula", *Journal of Information Systems Education*, Special Issue on Enterprise Resource Education, Vol. 15, No. 3, Fall 2004, pp. 301-313.
- Vician, C., M. Garfield, J. Hoffer, M. Prescott, B. Rollier, D. M. Strong, and K. L. Elder, "The AMCIS 2003 Panels on IS Education-II. The Chicken and the Egg Debate: Positioning Database Content in the Information Systems Curriculum", *Communications of the Association for Information Systems*, Vol. 14, August 2004, pp. 147-157.
- Luo, W. and D. M. Strong, "A Framework for Evaluating ERP Implementation Choices", *IEEE Transactions on Engineering Management*, Vol. 51, No. 3, August 2004, pp. 322-333.
- Strong, D. M. and O. Volkoff, "A Roadmap for Enterprise Systems Implementation", *IEEE Computer*, Vol. 37, No. 6, June 2004, pp. 22-29.
- Lee, Y. W., L. Pipino, D. M. Strong, and R. Y. Wang, "Process-embedded Data Integrity", *Journal of Database Management*, Vol. 15, No. 1, January-March 2004, pp. 88-104.
- Lee, Y. W. and D. M. Strong, "Knowing-Why about Data Processes and Data Quality", *Journal of Management Information Systems*, Vol. 20, No. 3, Winter 2003-4, pp. 13-39.
- Dishaw, M. T. and D. M. Strong, "The Effect of Task and Tool Experience on Maintenance CASE Tool Usage", *Information Resources Management Journal*, Vol. 16, No. 3, July-September 2003, pp. 1-16.
- Lee, Y. W., D. M. Strong, B. K. Kahn and R. Y. Wang, "AIMQ: A Methodology for Information Quality Assessment", *Information & Management*, Vol. 40, No. 2, December 2002, pp. 133-146.

- Zhang, P., I. Benbasat, J. Carey, F. Davis, D. Galletta, and D. Strong, "AMCIS 2002 Panels and Workshops I: Human-Computer Interaction Research in the MIS Discipline", *Communications of the Association for Information Systems*, Vol. 9, 2002, pp. 334-355.
- Kahn, B. K., D. M. Strong, and R. Y. Wang, "Information Quality Benchmarks: Product and Service Performance", *Communications of the ACM*, Vol. 45, No. 4ve, April 2002, pp. 184-192.
- Lou, H., W. Luo, and D. Strong, "Perceived Critical Mass Effect on Groupware Acceptance: A Revised Technology Acceptance Model", *European Journal of Information Systems*, Vol. 9, No. 2, June 2000, pp. 91-103.
- Khalil, O. E. M., D. M. Strong, B. K. Kahn, and L. L. Pipino, "Teaching Information Quality in Information Systems Undergraduate Education", *Informing Science*, Vol. 2, No. 3, 1999, pp. 53-59.
- Dishaw, M. T. and D. M. Strong, "Extending the Technology Acceptance Model with Task-Technology Fit Constructs", *Information & Management*, Vol. 36, No. 1, July 1999, pp. 9-21.
- Dishaw, M. T. and D. M. Strong, "Supporting Software Maintenance with Software Engineering Tools: A Computed Task-Technology Fit Analysis", *Journal of Systems and Software*, Vol. 44, No. 2, December 1998, pp. 107-120.
- Wang, R. Y., Y. W. Lee, L. L. Pipino, and D. M. Strong, "Manage Your Information as a Product", *Sloan Management Review*, Vol. 39, No. 4, Summer 1998, pp. 95-105.
- Dishaw, M. T. and D. M. Strong, "Assessing Software Maintenance Tool Utilization Using Task-Technology Fit and Fitness-for-Use Models", *Journal of Software Maintenance*, Vol. 10, No. 3, May-June 1998, pp. 151-179.
- Strong, D. M., Y. W. Lee, and R. Y. Wang, "Ten Potholes in the Road to Information Quality", *IEEE Computer*, Vol. 30, No. 8, August, 1997, pp. 38-46.
- Also available as: Strong, D. M., Y. W. Lee, and R. Y. Wang, "Ten Potholes in the Road to Information Quality", *Nikkei Computer*, December 8, 1997, pp. 205-212 (in Japanese).
- Strong, D. M., Y. W. Lee, and R. Y. Wang, "Data Quality in Context", *Communications of the ACM*, Vol. 40, No. 5, May 1997, pp. 103-110.
- Strong, D. M., "IT Process Designs for Improving Information Quality and Reducing Exception Handling: A Simulation Experiment", *Information & Management*, Vol. 31, No. 5, January 1997, pp. 251-263.
- Wang, R. Y. and D. M. Strong, "Beyond Accuracy: What Data Quality Means to Data Consumers", *Journal of Management Information Systems*, Vol. 12, No. 4, Spring 1996, pp. 5-34.
- Strong, D. M. and S. M. Miller, "Exceptions and Exception Handling in Computerized Information Processes", *ACM Transactions on Information Systems*, Vol. 13, No. 2, April 1995, pp. 206-233.
- Strong, D. M., "Decision Support for Exception Handling and Quality Control in Office Operations", *Decision Support Systems*, Vol. 8, No. 3, 1992, pp. 217-227.
- Kriebel, C. H. and D. M. Strong, "A Survey of the MIS and Telecommunications Activities of Major Business Firms", *MIS Quarterly*, Vol. 8, No. 3, September 1984, pp. 171-177.

### **Book and Monograph Chapters:**

- Johnson, S. A., D. M. Strong, J. J. Mistry, A. Asanar, Y. Patra, "Teaching Enterprise Decision-Making Using ERP-Based Modules", in A. K. Soni and F. E. Akaiwa, Eds, *Enterprise Resource Planning: Teaching and Research*, Innovation Monograph II, SAP and Indiana University Kelley School of Business, October 2006, pp. 21-34.
- Strong, D. M., C. Fisher, D. L. Feinstein, and H. E. Longenecker, Jr., "Teaching, Learning, and Curriculum Development to Support Managing Information as a Product", Chapter 14 in R. Y. Wang, S. E. Madnick, E. M. Pierce, and C. W. Fisher, Eds, *Information Quality, Advances in Management Information Systems*, Volume 1, Armond, NY: M.E. Sharpe, 2005, pp. 217-229.

- Dishaw, M. T. and D. M. Strong, "The Effect of Task and Tool Experience on Maintenance CASE Tool Usage", Chapter XVII in M. Khosrow-Pour, Ed., *Advanced Topics in Information Resources Management*, Volume 3, Hershey, PA: Idea Group Publishing, 2004, pp. 353-371. (Reprint of a paper in *Information Resources Management Journal*, Vol. 16, No. 3, July-September 2003, pp. 1-16.)
- Kahn, B. K. and D. M. Strong, "Where is Information Quality in Information Systems Education?", in Piattini, M. G., C. Calero, and M. Genero, Ed., *Information and Database Quality*, Chapter 9, pp. 199-222, Boston, MA: Kluwer Academic Publishers, 2002.
- Strong, D. M., Y. W. Lee, and R. Y. Wang, "Data Quality in Context", in G. G. Schulmeyer and G. R. MacKenzie, *Verification and Validation of Modern Software-Intensive Systems*, Upper Saddle River, NJ: Prentice-Hall PTR, 2000, pp. 320-331. (Revision of the version in *Communications of the ACM*, Vol. 40, No. 5, May 1997, pp. 103-110.)
- Strong, D. M., Y. W. Lee, and R. Y. Wang, "Ten Potholes in the Road to Information Quality", in *The Technology of the Development of Software*, Chiyoda-ku, Tokyo, Japan: Nikkei Business Publications, 1998, pp. 270-278 (Translated into Japanese from the English version in *IEEE Computer*, Vol. 30, No. 8, August, 1997, pp. 38-46).

### **Refereed Conference Publications:**

- "RecFit: A Context-Aware System for Recommending Physical Activities", accepted as a poster paper in the Proceedings of 1st International Workshop on Mobile Medical Applications (MMA 2014), November 6, 2014 (in conjunction with Sensys 2014).
- Strong, D., B. Tulu, E. Agu, Q. He, P. Pedersen, L. Wang, R. Ignatz, R. Dunn, S. Pagoto, and D. Harlan, "Design of the Feedback Engine for a Diabetes Self-care Smartphone App.", *Proceedings of the Americas Conference on Information Systems*, August 2014.
- He, Q., E. O. Agu, D. M. Strong, B. Tulu, P. C. Pedersen, and L. Wang, "The Design, Architecture and Implementation of Sugar: An Android Smartphone App for Advanced Diabetes", *Proceedings of the Diabetes Technical Meeting 2013*, to appear in *Journal of Diabetes Science and Technology*.
- He, Q., E. O. Agu, P. Pederson, D. M. Strong and B. Tulu, "Characterizing the Performance and Behaviors of Runners Using Twitter", *Proceedings of the IEEE International Conference on Healthcare Informatics (ICHI)*, Philadelphia, PA, 2013.
- Agu, E. O., P. C. Pedersen, D. M. Strong, B. Tulu, Q. He, L. Wang, and Y. Li, "The smartphone as a Medical Device: Assessing Enablers, Benefits and Challenges", *Proceedings of the Workshop on Design Challenges in Mobile Medical Device Systems (DC-MMDS)*, held in conjunction with IEEE SECON2013, 2013.
- Strong, D. M., P. Pedersen, E. Agu, B. Tulu, L. Wang, Q. He, R. Ignatz, R. Dunn, D. Harlan, and S. Pagoto, "Self-care Management: Patient-Centered Diabetic Wound Care Using Smart Phones", *Poster Proceedings of the American Medical Informatics Association 2013 Annual Symposium*, Washington, D.C., November 17-20, 2013.
- Tulu, B., D. Strong, S. Johnson, M. Ozkaynak, J. Trudel, L. Garber, "Patient Portals and Health Management", *Poster Proceedings of the American Medical Informatics Association 2013 Annual Symposium*, Washington, D.C., November 17-20, 2013.
- Wang, L., P.C. Pedersen, D. Strong, B. Tulu, E. Agu, Wound Image Analysis System for Diabetics, *Proceedings of the SPIE Conference on Medical Imaging*, Lake Buena Vista, FL, February 9-14, 2013.
- Tulu, B., D.M. Strong, S.A. Johnson, I. Bar-On, J. Trudel, L. Garber, "Personal Health Records: Identifying Utilization Patterns from System Use Logs and Patient Interviews, accepted for presentation and publication, *Proceedings of the 45<sup>th</sup> Hawaii International Conference on System Sciences (HICSS-45)*, January 4-7, Maui, HI, 2012, Nominated for Best paper award.

- McGimpsey, M., D.M. Strong, S.A. Johnson, I. Bar-On, B. Tulu, "Autonomy and Electronic Health Records: Can We Have Both?", *Proceedings of the Seventeenth Americas Conference on Information Systems*, Detroit, MI, August 5-7, 2011.
- Strong, D. M., S. A. Johnson, I. Bar-On, B. Tulu, L. Pelletier, O. Volkoff, L. Garber, J. Trudel, "EHRs as an Agent of Change for Improving Health Care Delivery Processes", *Poster Proceedings of the American Medical Informatics Association 2010 Annual Symposium*, Washington, D.C., November 13-17, 2010.
- Pelletier, L. R., S. A. Johnson, D. M. Strong, B. Tulu, I. Bar-On, J. Trudel, N. Kashyap, L. Garber, "Standardization of Health Care Delivery Processes: A Qualitative Study of the Effects of Electronic Health Record Systems", *Poster Proceedings of the American Medical Informatics Association 2009 Annual Symposium*, San Francisco, November 14-18, 2009.
- Strong, D. M, O. Volkoff; S. A. Johnson, I. Bar-On, and L. R. Pelletier "Electronic Health Records and the Changing Roles of Health Care Professionals: A Social Informatics Perspective", *Proceedings of the Fifteenth Americas Conference on Information Systems*, San Francisco, CA, August 7-9, 2009.
- Ang, W., Y. Lee, S. Madnick, D. Mistree, M. Siegel, D. Strong, R. Wang, and C. Yao, "House of Security: Locale, Roles and Resources for Ensuring Information Security", *Proceedings of the Twelfth Americas Conference on Information Systems*, Acapulco, Mexico August 4-6, 2006, pp. 3481-3485.
- Johnson, S. A., D. M. Strong, J. J. Mistry, "Integrating Enterprise Decision-Making Modules into Industrial Engineering Curricula", *Proceedings of the 2006 ASEE Annual Conference*, Chicago, IL, June 18-21, 2006.
- Strong, D. M. and O. Volkoff, "Data Quality Issues in Integrated Enterprise Systems", *Proceedings of the International Conference on Information Quality*, November 4-6, 2005, Cambridge, MA, pp. 126-132.
- Dishaw, M. T. and D. M. Strong, "Examining Multiple Dimensions of Task-Technology Fit", *Proceedings of the Americas Conference on Information Systems*, August 11-14, 2005, Omaha, NE, pp. 2404-2413.
- Dishaw, M. T., D. M. Strong, and D. B. Bandy, "The Impact of Task-Technology Fit in Technology Acceptance and Utilization Models", *Proceedings of the Americas Conference on Information Systems*, August 5-8, 2004, New York, NY, pp. 3306-3311.
- Johnson, S. A., D. M. Strong, and J. J. Mistry, "Teaching Enterprise Decision-Making Using Hands-On ERP-based Modules", *Proceedings of the Institute of Industrial Engineers Research Conference (IERC)*, May 15-19, Houston, TX, 2004.
- Lee, Y. W. and D. M. Strong, "Process Knowledge and Data Quality Outcomes", *Proceedings of the 2003 International Conference on Information Quality*, November 7-9, 2003, Cambridge, MA, pp. 96-106.
- Strong, D. M., O. Volkoff, and M. B. Elmes, "ERP Systems and the Paradox of Control", *Proceedings of the Americas Conference on Information Systems*, August 3-6, 2003, Tampa, FL, pp. 500-507.
- Dishaw, M. T., D. M. Strong, and D. B. Bandy, "The Role of Individual Characteristics in Software Utilization Models", *Proceedings of the Americas Conference on Information Systems*, August 3-6, 2003, Tampa, FL, pp. 2111-2117.
- Volkoff, O., D. M. Strong, and M. B. Elmes, "Between a Rock and a Hard Place: Boundary Spanners in an ERP Implementation", *Proceedings of the Americas Conference on Information Systems*, August 9-11, 2002, Dallas, TX, pp. 958-962.
- Dishaw, M. T., D. M. Strong, and D. B. Bandy, "Extending the Task-Technology Fit Model with Self-Efficacy Constructs", *Proceedings of the Americas Conference on Information Systems*, August 9-11, 2002, Dallas, TX, pp. 1021-1027
- Kahn, B. K., R. Katz-Haas and D. M. Strong, "Organizational Realism Meets Information Quality Idealism: The Challenges of Keeping an Information Quality Initiative Going", *Proceedings of the 2001 Conference on Information Quality*, November 2-4, 2001, Cambridge, MA, pp. 20-32.

- Till, R., and D. Strong, "Evaluating Fire Department Access Using Discrete Event Simulation", *Proceedings of the Ninth International Fire Science and Engineering Conference*, September 17-19, 2001, Edinburgh, Scotland.
- Villeneuve, A. O., and D. M. Strong, "The Impact of Domains of Knowledge on the Quality of Database Conceptual Models", *Proceedings of the Americas Conference on Information Systems*, August 2-5, 2001, Boston, MA, pp. 396-402.
- Strong, D. M., O. Volkoff, and M. B. Elmes "ERP Systems, Task Structure, and Workarounds in Organizations", *Proceedings of the Americas Conference on Information Systems*, August 2-5, 2001, Boston, MA, pp. 1049-1051.
- Dishaw, M. T., D. M. Strong, and D. B. Bandy, "Assessing Task-Technology Fit in Simulation Modeling", *Proceedings of the Americas Conference on Information Systems*, August 2-5, 2001, Boston, MA, pp. 1168-1170.
- Kahn, B. K., R. Katz-Haas, and D. M. Strong, "How to Get an Information Quality Program Started: The Ingenix Approach", *Proceedings of the 2000 Conference on Information Quality*, October 20-22, 2000, Cambridge, MA, pp. 28-35.
- Wang, R. Y., D. M. Strong, B. K. Kahn, and Y. W. Lee, "An Information Quality Assessment Methodology: Extended Abstract", *Proceedings of the 1999 Conference on Information Quality*, October 22-24, 1999, Cambridge, MA, pp. 258-265.
- Dishaw, M. T., D. M. Strong, and D. B. Bandy, "Developing a General Method to Assess Task-Technology Fit", *Proceedings of the Americas Conference on Information Systems*, August 13-15, 1999, Milwaukee, WI, pp. 609-611.
- Lou, H., W. Luo, and D. Strong, "Critical Mass Effect on Groupware Acceptance: A Revised Technology Acceptance Model", *Proceedings of the 29<sup>th</sup> Decision Sciences Institute Conference*, November 1998, Las Vegas, NV.
- Kahn, B. K. and D. M. Strong, "Product and Service Performance Model for Information Quality: An Update", *Proceedings of the 1998 Conference on Information Quality*, October 23-25, 1998, Cambridge, MA, pp. 102-115.
- Dishaw, M. T. and D. M. Strong, "Experience as a Moderating Variable in a Task-Technology Fit Model", *Proceedings of the Americas Conference on Information Systems*, August 14-16, 1998, Baltimore, MD, pp. 722-724.
- Dishaw, M. T. and D. M. Strong, "Extending a Model of Task Technology Fit to CASE Tool Utilization in Design Maintenance Tasks", *Proceedings of the Americas Conference on Information Systems*, August 14-16, 1998, Baltimore, MD, pp. 769-771.
- Dishaw, M. T. and D. M. Strong, "Software Maintenance: It's Tool Time", *Proceedings of the 1998 Information Resources Management Association International Conference*, May 17-20, 1998, Boston, MA, pp. 671-672.
- Kahn, B. K., D. M. Strong, and R. Y. Wang, "A Model for Delivering Quality Information as Product and Service", *Proceedings of the 1997 Conference on Information Quality*, October 24-26, 1997, Cambridge, MA, pp. 80-94.
- Dishaw, M. T. and D. M. Strong, "Extending the Technology Acceptance Model", *Proceedings of the Americas Conference on Information Systems*, August 15-17, 1997, Indianapolis, IN, pp. 1-3.
- Wang, R. Y., Y. W. Lee, and D. M. Strong, "Can You Defend Your Information in Court?", *Proceedings of the 1996 Conference on Information Quality*, October 25-26, 1996, Cambridge, MA, pp. 53-64.
- Dishaw, M. T. and D. M. Strong, "Using a General Task-Technology Fit Model to Assess Software Maintenance Tool Utilization", *Proceedings of the Americas Conference on Information Systems*, August 16-18, 1996, Phoenix, AZ, pp. 66-68.
- Dishaw, M. T. and D. M. Strong, "Explaining Information Technology Utilization with the Task-Technology Fit Construct", *Proceedings of the First INFORMS Conference on Information Systems and Technology*, May 5-8, 1996, Washington, DC, pp. 236-239.



- Villeneuve, A. O. and D. M. Strong, "Database Requirements: Schemata as an Explanatory Construct in Database Conceptual Modeling", *Proceedings of the Third Workshop on Information Technologies and Systems (WITS)*, December 4-5, 1993, Orlando, FL, pp. 57-66.
- Cohen, R. M. and D. M. Strong "A Model for Supporting Database Design", *Proceedings of the First Workshop on Information Technologies and Systems (WITS)*, December 14-15, 1991, Cambridge, MA, pp. 243-273.
- Strong, D. M. "Integration of Expert Systems, Traditional Systems, and People: A Manufacturing Example", *Proceedings of the Third International Conference on Expert Systems and the Leading Edge in Production and Operations Management*, May 21-24, 1989, pp. 57-69.
- Miller, S. M. and D. M. Strong "A Model for Evaluating the Performance of Operational Level Information Handling Activities", *Proceedings of the Seventh International Conference on Information Systems (ICIS)*, December 15-17, 1986, San Diego, CA, pp. 277-298.

### **Other Publications:**

- Wilson, E. V. and D. M. Strong, "Editors' Introduction to the Special Section on Patient-Centered E-Health: Research Opportunities and Challenges", *Communications of the Association for Information Systems*, Vol. 34, 2014.
- Brown, C. V., Strong, D. M., Nicolato, C. M. and Romasco, C. L. 2013. "Patient-Centric Tools for Better Diabetes Self-Management", *MDAdvisor* (6:1), Winter, pp. 25-28.
- Strong, D. M., E. Agu, P. Pedersen, and B. Tulu, "Pocket Doctor", *Practical Patient Care*, Issue 10, October 2012, pp. 35-37, Invited cover article.
- Strong, D. M., Information Quality: Managing Information as a Product, in *Encyclopedia of Database Systems*, Springer, 2009, pp. 1502-1508.
- Ang, W. H., V. Deng, Y. Lee, S. Madnick, D. Mistree, M. Siegel, D. Strong, R. Wang, "House of Security: Stakeholder Perceptions of Security Assessment and Importance", *FSTC Innovator*, Vol. 1, No. 1, 2007, pp. 19-24.
- Strong, D. and D. Straub, Editors, *Proceedings of the Seventh Americas Conference on Information Systems*, August 2-5, 2001, Boston, MA.
- Strong, D. M. and B. K. Kahn, Editors, *Proceedings of the 1997 Conference on Information Quality*, October 24-26, 1997, Cambridge, MA.
- Strong, D. M. "Information Quality and Timeliness: A Study of Order Processing; Part I: Order Processing Operations; Part II: Computer Support" Boston University Manufacturing Roundtable, Research Report Series Number 410, October 1990.

### **Presentations:**

- Wang, L., P. C. Pedersen, D. Strong, B. Tulu, E. Agu, Q. He, "Smartphone-based Wound Assessment System for Diabetes Patients", presented at the Diabetes Technology Meeting, San Francisco, CA, October 31-November 2, 2013.
- Johnson, S., B. Tulu, D. Strong, M. Ozkaynak, J. Trudel, L. Garber, "Linking Lean Thinking and Health IT to Improve Healthcare Delivery", presented at the Industrial and Systems Engineering Research Conference (ISERC), May 18-22, 2013, San Juan, Puerto Rico.
- Johnson, S., L. Pelletier, D. Strong, I. Bar-On, L. Garber, J. Trudel, "Exploring the Standardization Affordance of an Electronic Health Record System", presented at the DSI Annual Meeting, Boston, MA, November 21, 2011.
- Strong, D.M., "Creating a Successful NSF Grant Proposal", presented at the SigHealth Workshop at the Seventeenth Americas Conference on Information Systems, Detroit, MI, August 4, 2011.
- Strong, D.M., B. Tulu, S.A. Johnson, "Synergies and Challenges of Working across University, VERC, and QUERI", presented at the VA Engineering Resource Center Symposium, Detroit, MI, August 3, 2011.

- Strong, D.M., "Meet CeHIPT, the Center for eHealth Innovation and Process Transformation", presented at the Second Symposium on Healthcare Advancements in Research and Practice (Sharp 2.0), Moorhead, MN, April 28-29, 2011.
- Brown, C., C. Abraham, M. Akiyama, W. Currie, E. Davidson, C. LeRouge, D. Strong, "Healthcare IT Adoption under Different Government Models: Debating the HITECH Impacts", Panel Presented at the International Conference on Information Systems, December 12-15, 2010, St. Louis, MO.
- Strong, D. M., S. A. Johnson, I. Bar-On, B. Tulu, L. Pelletier, O. Volkoff, L. Garber and J. Trudel, "EHRs as an Agent of Change for Improving Health Care Delivery Processes", presented at the NSF HSD Grantees Conference, Washington, D.C., September 27-28, 2010.
- Strong, D. M., O. Volkoff, S. A. Johnson, L. Pelletier, I. Bar-On, B. Tulu, N. Kashyap, J. Trudel, and L. Garber, "Actualizing an IT Innovation: the Case of an Electronic Health Record Implementation", presented at Simon Fraser University Innovation Workshop, January 15, 2010.
- Strong, D.M., O. Volkoff, S. A. Johnson, L. R. Pelletier, I. Bar-On, B. Tulu, N. Kashyap, J. Trudel, and L. Garber, "EHR Affordance-Actualization Theory", presented at the *Journal of the Association for Information Systems Theory Development Workshop*, at the International Conference on Information Systems, Phoenix, AZ, Dec 14, 2009.
- Strong, D. M., B. Tulu, L. R. Pelletier, S. A. Johnson, I. Bar-On, O. Volkoff, L. Garber, N. Kashyap and J. Trudel, "EHR Affordances and their Actualizations", Extended Abstract, presented at the SigHealth Workshop at the Americas Conference on Information Systems, San Francisco, CA, August 6, 2009.
- Johnson, S. A., L. R. Pelletier, D. M. Strong, I. Bar-On, J. Trudel, N. Kashyap, L. Garber, Standardization of Health Care Delivery Processes: A Qualitative Study of the Effects of Electronic Health Record Systems. Extended Abstract, INFORMS MSOM Conference and Special Interest Group (SIGs) Meetings, MIT, Cambridge, MA, June 29-30, 2009.
- Pelletier, L. R., S. A. Johnson, Strong, D. M., I. Bar-On, Standardization of Health Care Delivery Processes: A Qualitative Study of the Effects of Electronic Health Record Systems, Worcester Polytechnic Institute Graduate Research Achievement Day Poster Symposium, Worcester, MA, April 1, 2009.
- Invited Panelist, "Innovations in Health Care and Health Care Management", with H. K. Ault, G. D. Pins, J. Rulfs, and H. G. Vassallo, Sponsored by WPI Department of Management through the Frederick J. Aspinwall '70 Lecture Fund, November 19, 2008, Worcester, MA.
- Strong, D. M. and O. Volkoff, "Understanding Organization-Enterprise System Fit: A Path to Theorizing the IT Artifact", presented at Simon Fraser University, August 5, 2008.
- Strong, D. M. and O. Volkoff, "Maintaining the Benefits After Enterprise Systems Integrate Organizational Data", presented at the *MIS Quarterly Executive Workshop* at the Americas Conference on Information Systems, August 14, 2008.
- Johnson, S. A. and D. M. Strong, "Integrating Enterprise Decision-Making Modules into Undergraduate Industrial Engineering Curricula, Poster presentation in NSF-sponsored session, 2008 Annual ASEE Conference, Pittsburgh, PA, June 23-25, 2008.
- Bar-On, I., S. A. Johnson, D. M. Strong, L. Garber, S. Emani, L. Pelletier, "Affordances and EHR: Exploring Standardization in Primary Care", Partners IS Research Group, Wellesley, MA, May 13, 2008.
- Pelletier, L. R., S. A. Johnson, Strong, D. M., I. Bar-On, Standardization of Health Care Delivery Processes: A Qualitative Study of the Effects of Electronic Health Record Systems, Worcester Polytechnic Institute Graduate Research Achievement Day Poster Symposium, Worcester, MA, March 28, 2008.
- Volkoff, O., D. M. Strong, and S. A. Johnson, "Electronic Health Records and the Changing Social Identity of Health Care Professionals", IFIP Working Group 8.2 Oasis Workshop, Montreal, December 9, 2007.

- Strong, D. M. and O. Volkoff, "Enterprise Systems and Data Quality", Special Interest Group on Enterprise Systems Workshop, Montreal, December 8-9, 2007.
- Bar-On, I., S. A. Johnson, D. M. Strong, L. Garber, S. Emani, L. Pelletier, and S. Mittal, Health Care Delivery Process Improvements and EHR Implementation: A Pilot Study, Epic Research Advisory Council, Verona, WI, May 24-25, 2007.
- Johnson, S. A., I. Bar-On, D. M. Strong, L. Pelletier, S. Mittal, L. Garber, and S. Emani, Health Care Delivery Process Improvements and EHR Implementation: A Pilot Study, Colleges of Worcester Consortium Research Showcase on Research and Educational Partnerships between the Health Care Industry and Consortium Institutions, Worcester, MA, April 11, 2007.
- Johnson, S. A., D. M. Strong, J. J. Mistry, A. Asanar, Y. Patra, Building Enterprise Decision-Making Skills Using ES-Based Modules, Seventeenth Annual POMS Conference, Boston, MA, April 29-May 1, 2006.
- Invited Panelist, "Data Quality Panel", with M. Bovee, T. L. Roberts, and P. Srivastava, Decision Sciences Institute Annual Meeting, November 20-23, 2004, Boston, MA.
- Invited Presentation, "The Organizational Impact of Enterprise Systems: Effects on Control and Empowerment", with O. Volkoff, Enterprise Resource Planning Workshop, Bentley College, October 15, 2004.
- "A Research Program for Data and Information Quality", Presented at the Accounting and Information Systems Seminar, University of Kansas, April 16, 2004, Lawrence, Kansas.
- Volkoff, O., M. B. Elmes and D. M. Strong, "Enterprise Systems, Knowledge Transfer and Power Users", Presented at the Organizations and Society in Information Systems (OASIS) Workshop, December 14, 2003, Seattle, WA.
- Elmes, M. B., D. M. Strong, and O. Volkoff, "ERP Systems and the Dialectics of Visibility and Control", Presented at the Academy of Management Meetings, August 1-6, 2003, Seattle, WA.
- Mistry, J., D. Strong, and S. Johnson, "Integrating the Business Curriculum: An ERP Approach", Presented at the American Accounting Association Meetings, August 1-6, 2003, Honolulu, HI.
- Invited Panelist, "IS 2002.8 Physical Design and Implementation with DBMS", Americas Conference on Information Systems, August 4-6, 2003, Tampa, FL.
- Invited Speaker, "A Unified Model of IT Use Choices: Contributions from TAM, TTF, and CSE", First Annual Workshop on HCI Research in MIS (HCI/MIS '02), December 14, 2002, Barcelona, Spain.
- Invited Panelist, "Navigating through the Maze of Curriculum Models and Accreditation in Undergraduate Information Systems Education", Proceedings of the Seventeenth Annual Conference of the International Academy for Information Management, December 13-15, 2002, Barcelona, Spain, pp. 207-208.
- Invited Panelist, "Education and Training Panel", International Conference on Information Quality, November 8-10, 2002, Cambridge, MA.
- Invited Panelist, "The Role of HCI Research in the MIS Discipline", Americas Conference on Information Systems, August 9-11, 2002, Dallas, TX.
- "ERP Systems and Changes in Power: A Foucauldian Perspective", with O. Volkoff and M. B. Elmes, presentation at the Organisations and Society in Information Systems (OASIS) 2000 Workshop, Brisbane, Australia, December 2000.
- Invited Panelist, "Panel Discussion on Data Quality: The View from Academia", 1999 Conference on Information Quality, October 22-24, 1999, Cambridge, MA.
- Invited Panelist, "Data and Information Quality in the IS Undergraduate and Graduate Education", *1998 Information Resources Management Association International Conference*, May 17-20, 1998, Boston, MA.

- "Information Quality Benchmarking: Product and Service Performance", presented at the Computer Science Seminar, Rensselaer Polytechnic Institute at Hartford, November 1997, Hartford, CT.
- "Information Quality Study", with R. Wang, presented at the CEIS Data Quality Symposium, sponsored by the Office of the Assistant Secretary of Defense (Health Affairs), June 1997, Washington, DC.
- "The Dimensions of Data Quality", presented as part of "State-of-the-Art in Information Quality Research" at the Conference on Information Quality, October 25-26, 1996, Cambridge, MA.
- "Learning by Solving Data Quality Problems", with Y. Lee and R. Wang, presented at INFORMS, Spring 1996, Washington, DC.
- "Improving Information Quality for the Information Age", presented at the 1995 Information Integrity Conference, sponsored by UNITECH Systems, May 1995, Toronto, Canada.
- "Defining and Measuring Information Quality", with Y. Lee and R. Wang, presented at INFORMS, Spring 1995, Los Angeles, CA.
- "Beyond Accuracy: Individual and Organizational Approaches to Data Quality", presented as part of a panel at the Fifteenth International Conference on Information Systems (ICIS), December, 1994, Vancouver, Canada.
- "The Life of Data Quality Projects", with Y. W. Lee, presented at the Information Technology Group Seminar, Sloan School of Management, Massachusetts Institute of Technology, May 1994.
- "The Dimensions of Data Quality: Data Consumers' Perspectives", presented as part of a panel at TIMS/ORSA, Spring 1994, Boston, MA.
- "The Dimensions of Data Quality", with R. Y. Wang, presented at the Information Technology Group Seminar, Sloan School of Management, Massachusetts Institute of Technology, April 1994.
- Invited Panelist, "Data Quality: A Critical Issue in the 1990's and Beyond", Plenary Session, Third Workshop on Information Technologies and Systems (WITS), December 1993, Orlando, FL.
- Invited Panelist, "Data Quality: Research and Practice", First Workshop on Information Technologies and Systems (WITS), December 1991, Cambridge, MA.
- "Software Quality", presented to the High-Performing Software Teams research project Industry Steering Committee, October 1991.
- "Software Quality", presented to the High-Performing Software Teams research project Academic Advisory Committee, August 1991.
- "Software Maintenance Management: A Total Quality Control Perspective", with Y. Hahm, presented at ORSA/TIMS, Fall 1990, Philadelphia, PA.
- "Supporting the Database Design Task", with R. M. Cohen, presented at ORSA/TIMS, Fall 1990, Philadelphia, PA.
- "Planning for Changes in Work Activities in Offices Implementing Advanced Information Systems", with S. M. Miller, presented at ORSA/TIMS, Fall 1985, Atlanta, GA.

## **Dissertation and Project Advising:**

### **Thesis Committees:**

- Member, Heather Woodward-Hagg, "Large System Transformation within Healthcare Organizations utilizing Lean Deployment Strategies", Ph.D. Dissertation, Manufacturing Engineering, WPI, January 2014.
- External Member, Sonia Gantman, "Three Interdisciplinary Studies on IT Outsourcing", Ph.D. Dissertation, Bentley University, April 2012.

- Member, Lori R. Pelletier, "Information-enabled Decision-Making in Health Care: EHR-enabled Standardization, Physician Measurement and Medical Home", Ph.D. Dissertation, Manufacturing Engineering, WPI, May 2010.
- External Examiner, Helinä Melkas, "Towards Holistic Management of Information within Service Networks: Safety Telephone Services for Ageing People", Ph.D. Dissertation, Department of Industrial Engineering and Management, Helsinki University of Technology, January 2004.
- Member, Robert Till, "Building Evaluation for Manual Fire Suppression", Ph.D. Dissertation, Fire Safety Studies, WPI, January 2001.
- Chair, Alain Villeneuve, "Cognitive Expertise in Database Design", Doctoral Dissertation, Graduate School of Management, Boston University, January 2000.
- Chair, Yukun Hahm, "The Relationship between Cognitive Factors and Maintainer Effectiveness in Software Maintenance", Doctoral Dissertation, Graduate School of Management, Boston University, September 1994.
- Chair, Mark Dishaw, "Using Maintenance Oriented Software Engineering Tools to Support Software Maintenance Activities", Doctoral Dissertation, Graduate School of Management, Boston University, June 1994.
- Reader, Handrito Hardjono, "A Case Study of the Business Impact of Data Quality in the Airline Industry", Sloan Fellow's Thesis, Sloan School of Management, Massachusetts Institute of Technology, May 1993.

### **WPI Major Qualifying Projects:**

- Muyeedul Hoque, "Development of Watershed Data Analysis Tools", April 2014, sponsored by Massachusetts Department of Environmental Protection.
- Ilya Chmykh, Christopher Molineaux, and Michael Perruccio, "Building Social Intranets at Putnam Investments", February 2014, co-advised with Prof. B. Tulu, sponsored by Putnam Investments.
- Stephen Berselli, Kun Peng, and Hao Zhu, "A Cross-Platform Database Infrastructure Monitoring Dashboard for The Hanover Insurance Group", December 2012, sponsored by Hanover Insurance, Finalist for the Provost's MQP Award.
- Teodor Serbanescu, "Monitoring and Control Solution for Electric Heat-Trace Systems", January 2012, sponsored by Diamond Thermal Systems.
- Divya Mathew, Archana Reddy, Cordell Rogers, "Business Analysis for Hanover: Program Analytics Dashboard", December 2009, sponsored by Hanover Insurance, Finalist for the Provost's MQP Award.
- Kyle Boran and Ulrich Werner, "Improving Contact Center Demonstrations at Cisco Systems", April 2009, sponsored by Cisco Systems.
- Millisent Fury Hopkins and William Price, "Dartmouth Harbormaster Database System", December 2008, sponsored by the Dartmouth, MA Harbormaster.
- Thomas McCarthy, Eric Twark, and Emily Zall, "Report Optimization at Hanover Insurance", December 2007, sponsored by Hanover Insurance.
- Todor Kiryazov, Gregory McHale (CS), Daniel Mazynski, and Phillip Sweeney, "Computerworld Survey System", March 2007, co-advised with Prof. D. Brown, sponsored by Computerworld, Winner of Provost's MQP Award (CS Department).
- Andrew Bailey, Daniel Caron, Catherine Carrigan, and Jarthly Monterroso, "The Hanover Insurance Group Reporting System Analysis", co-advised with Prof. B. Tulu, December 2006, sponsored by Hanover Insurance.
- Colleen Ellsworth, Tom Fox, Thomas Gramzow III and Michael Mackey, "Literacy Volunteers of Greater Worcester Database", March 2006, sponsored by Literacy Volunteers of Greater Worcester.

Yury Alkhazov, Erin Ellsworth, Ryan Freund, and Christopher Olson, "Wireless Security at The Hanover Insurance Group", March 2006, sponsored by Hanover Insurance.

Carlos Arias, Dave Baribeault, Georgi Georgiev, and Douglas Leenhouts, "Senior Citizens Tracking System for Stow, MA", January 2006, sponsored by Stow Council on Aging.

David Argue, John Prudente, and Andrew St. John, "Fidelity Wireless Investment Education Trivia Application", April 2005, co-advised with Prof. S. Djamasbi, sponsored by Fidelity Investments.

Aaron Judell, Matthew Leach, Peter Maranian, and James Wong, "Redesign and Implementation of a Graphical User Interface for Fidelity Investments", April 2005, co-advised with Prof. S. Djamasbi, sponsored by Fidelity Investments.

Tatiana Luzardo, Sheena Patel, Jarett Stein, and Anthony Vello, "Citizen Online Request System for the Department of Public Works", December 2004, sponsored by City of Worcester Technical Services and Department of Public Works.

Lawrence Morris, Robert Pantazelos, and Brandon Roche, "Metadata Management for Allmerica Financial Corporation", April 2003, sponsored by Allmerica Financial.

Maeghan Bergeron, Megan Ledger, and Jason O'Leary, "Parking Permit Application System for the City of Worcester", April 2003, sponsored by City of Worcester Technical Services and Department of Public Works.

Michael LaBarron, Thuc Tang, and Jessica To, "GEAE Preventative Maintenance Tracking System", January 2003, sponsored by General Electric Aircraft Engines.

Valerie Sanders, Farah Syed, Nadia Syed, and Daniel Tromp, "Shop Cost Reporting System for General Electric Aircraft Engines Gear Plant", April 2002, sponsored by General Electric Aircraft Engines.

Christian Iniguez and Jeremy Tonzi, "Gene Regulatory Analysis System for Massachusetts Biomedical Initiatives", April 2002, sponsored by Massachusetts Biomedical Initiatives.

Brian Fisher, Jason Meltzer, and Shawn Smith, "Data Quality Measurement Project for General Electric Aircraft Engines", February 2002, sponsored by General Electric Aircraft Engines.

Kasemtas Dardarananda, Peter Spivack, and Karen Zhu, "Medline Database for Mass College of Pharmacy", February 2002, sponsored by Massachusetts College of Pharmacy.

Michael Bender, Yisroel Gesin, Michael Herring, and Jesse Milton, "Inventory Management for Lean Manufacturing at General Electric", January 2002, sponsored by General Electric Aircraft Engines.

Robert Busby, Sean Concannon, Ross Lefrancois, and Gregory Lorincz, "Web-based Data System for General Electric", April 2001, co-advised with Prof. Volkoff, sponsored by General Electric Aircraft Engines.

Thomas Collins, Matthew Crawford, and Tracy Quinteros, "Job Safety Analysis Database for General Electric", April 2001, sponsored by General Electric Aircraft Engines.

Aimee Kazlowski, Rachel Maltais, and Brett Novak, "General Electric Safety Items Database", April 2001, sponsored by General Electric Aircraft Engines.

Jon Bartelson (CS), David Freeman, Kenneth Mair, Howard Rappaport, and Thomas Solodyna, "e-STORM: Internet-Based Requirements Management System for Cierant", February 2001, co-advised with Prof. Loiacono and Prof. Cruz, sponsored by Cierant, Winner of Provost's MQP Award.

Brenton Chamberland, Melissa Curry, and Gregory Katcoff, "DOC Sys: Document Order and Control System for INTELSAT", February 2001, sponsored by INTELSAT, at the Washington, D.C. project center.

Lisa Rafferty, Jonathan Suchecki, and William Thornhill, "Worcester Public Schools Curriculum Database", January 2001, co-advised with Prof. Loiacono, sponsored by Worcester Public Schools.

Joseph Compton, James Konz, and Michael Weber, "Virtual Gym: An Interactive WWW Community", October 2000, sponsored by Mike D'Angelo Training.

Brock Ehnert, Kevin Malone, and Mohammed-Moid Tungekar, "Platform Migration: Text Files to Oracle using Java", May 2000, sponsored by Teradyne.

John Bird, David Silva, and Ekwon Steele, "Graphic Modeling of Data Warehouse Metadata", April 2000, sponsored by Fleet Bank, Winner of Provost's MQP Award.

Yusuke Imura, Brandon Ngo, Jeremy Proulx, and Michael Tramantana, "A Process Management Measurement System at Allmerica", April 2000, sponsored by Allmerica Financial.

Shawn Beatty, Justin Cole, Shaun McDonough, and Eric Zago, "Customer Service Workflow System", May 1999, co-advised with Prof. Luo, sponsored by Streamware Corporation.

Charles Swanberg and Paul Wellspeak, "Virtual Sales Office", April 1999, sponsored by Allaire Corporation, Winner of Provost's MQP Award.

Michael T. Godfrey and Christopher D. Seal, "An Intranet Workflow System", November 1998, sponsored by Standish, Ayer & Wood, Inc.

Aaron Korthis and David Smiley, "Design and Internal Control of a Shipping System", March 1998, co-advised with Prof. Sullivan, sponsored by Bristol Technology, Winner of Provost's MQP Award.

#### **WPI Interactive Qualifying Projects:**

Olufunmilayo Adebayo and Jing (Joanne) Zhang, "Web Design and Implementation for the Family Health Center of Worcester, March 2010, co-advised with Prof. B. Tulu, sponsored by Family Health Center of Worcester.

Yusuf Aydin and Ahmed Furkan Gul, "Educational Programs for Health Care Information Technology and Operations", April 2008, co-advised with Prof. B. Tulu.

Jessica Coelho, Antoine Coleman, and Janelle Tavares, "Athletic Equipment Facility Operations", March 2007, co-advised with Prof. S. Djamasbi, sponsored by WPI's Athletic Department.

Sin Nin (Raymond) Lam and Frances K. Leung, "Computer Training Course at the Worcester Youth Center", May 1999, sponsored by UMass/Memorial Hospital and the Worcester Youth Center.

Brandon Ngo, Dung Phu, and Prashanth Ram, "Perinatal Database", May 1999, sponsored by UMass/Memorial Hospital.

Jason O. Papadopoulos, "Data Quality Assurance", May 1999.

William Buchanan, "Database Development for a Nonprofit Agency", October 1998, sponsored by Rainbow Child Development Center.

Mervyn P. Chung Fat and Angie Li, "Data Quality Analysis", May 1997.

Richard N. McDonald, "The Effects of the Internet on Cooperative Organizations", April 1996.

#### **Other:**

Faculty Co-Advisor, St. Paul Travelers Information Technology Business Case Competition, Second Place (Dan Dahlberg, Michael Diamant, Michael Ng, Galia Traub), November 2008.

Faculty Co-Advisor, St. Paul Travelers Information Technology Business Case Competition, First Place (David Argue, Christopher Baker, James Baldassari, and Danielle Martin), April 2005.

## Grants and Contracts:

- 9/11-8/15 **National Science Foundation (NSF IIS-1065298)**  
"SHB: Medium: Self-care Management: Patient-Centered Diabetic Wound Care using Smart Phones", D. M. Strong, PI, E. Agu, P. Pedersen, B. Tulu, R. Ignatz (UMMS), Co-PIs, CISE Smart Health and Wellbeing Program, \$1,119,046.  
**National Science Foundation (NSF IIS-1065298) REU Supplement**, \$13,000, awarded 6/2013
- 1/10-12/11 **Veteran's Administration.**  
Funding for the New England Health Care Engineering Partnership (NEHCEP), which includes VA VISN 1, Northeastern University, MIT, and WPI. I. Bar-On, WPI PI, S. A. Johnson and D. M. Strong, WPI Co-PIs,. WPI's annual budget is approximately \$300,000/year, renewal for another 4 years for a total of \$1.5 million over 5 years. I finished my participation in the project at the end of 2011.
- 10/08-9/13 **National Science Foundation.**  
"AOC: Health Information Technology as an Agent of Change for Improving Health Care Delivery Process", D. M. Strong, PI, I. Bar-On, S. A. Johnson, J. Trudel and E. Westrick, Co-PIs, Human and Social Dynamics – Agents of Change Program, \$749,985.
- 9/08-7/09 **UMass Memorial Health Care.**  
"Creating Reliable and Valid Measures of Health Care Delivery Performance", S. A. Johnson, PI, D. M. Strong, Co-PI, \$42,592.
- 4/08-3/13 **Social Sciences and Humanities Research Council of Canada.**  
"The Organizational Effect of Implementing Inter-organizational Electronic Health Information Systems", O. Volkoff, PI, D. M. Strong, Collaborator, \$54,196 (Canadian).
- 7/06-5/07 **WPI Research Development Council.**  
"Applying Engineering and Information Technology Tools to Improve Health Care Delivery Processes", D. M. Strong, PI, Isa Bar-on and S. A. Johnson, Co-PIs, Faculty Advancement in Research (FAR) program, \$23,892.
- 5/05-4/09 **National Science Foundation.**  
"CCLI-EMD: Integrating Enterprise Decision-Making Modules into Undergraduate Industrial Engineering and Management Curricula", D. M. Strong, PI, S. A. Johnson and J. J. Mistry, Co-PIs, DUE-0442394, \$74,742.
- 5/02-7/03 **WPI Educational Development Council.**  
"Management Education in the Information Age", D. M. Strong, PI, S. A. Johnson and J. J. Mistry, Co-PIs, \$12,700.
- 7/01-6/05 **National Science Foundation.**  
"The Relationship of Enterprise Resource Planning (ERP) Implementation to Organizational Changes in Control, Task Structure, and Workarounds", D. M. Strong, PI, M. B. Elmes and O. Volkoff, Co-PIs, Innovation and Organizational Change Program, SES-0114954, \$299,987.
- 7/00-6/01 **WPI Research Development Council.**  
"Developing a Process Model of IT-Driven Second-Order Change: Three Case Studies of ERP Implementation in a Large Engineering Organization", D. M. Strong, PI, M. B. Elmes, Co-PI, \$5,860.
- 2/91-12/92 **IBM Corporation.**  
"Automation of the Applications Development Life-Cycle: Measuring the Value-Added", Professor P.J. Guinan, PI, \$20,000 support to me. I was responsible for the software quality and software maintenance components of this research project.



- 1/89-10/90 **Boston University Manufacturing Roundtable.**  
"Information Quality and Information Systems: Problems, Measurement, and Control", PI, \$5,000.
- 3/85-8/87 **Digital Equipment Corporation.**  
"Forecasting the Skill and Staffing Requirements of Intelligent Information Systems", Professor Steven Miller, PI, \$25,000 support to me.

## **Professional Activities:**

### **Conference and Journal Management:**

- Conference Co-Chair, AIS Americas Conference on Information Systems, August 10-12, 2017, Boston, MA.
- Track Co-Chair, Healthcare Information Systems Track, International Conference on Information Systems, December 15-18, 2013, Milan, Italy.
- Guest Editor with E. V. Wilson, Special Section on Patient-Centered E-Health, *Communications of the Association for Information Systems*, Vol. 34, 2014.
- Mini-Track Co-Chair, Role of Technology in Improving Health Care Delivery Processes, Sponsored by SIGHealth, AIS Americas Conference on Information Systems, August 15-17, 2013, Chicago, IL.
- Associate Editor, *ACM Journal of Data and Information Quality*, 2007-2012.
- Mini-Track Co-Chair, Role of Technology in Improving Health Care Delivery Processes, Sponsored by SIGHealth, AIS Americas Conference on Information Systems, August 9-11, 2012, Seattle, WA.
- Associate Editor, Information Technology in Health Care Track, International Conference on Information Systems, December 4-7, 2011, Shanghai, China.
- Mini-Track Co-Chair, Role of Technology in Improving Health Care Delivery Processes, Sponsored by SIGHealth, AIS Americas Conference on Information Systems, August 4-7, 2011, Detroit, MI.
- Program Co-Chair and Best Paper Selection Committee, International Conference on Information Quality, November 12-14, 2010, Little Rock, AR.
- Mini-Track Co-Chair, Role of Technology in Improving Health Care Delivery Processes, Sponsored by SIGHealth, AIS Americas Conference on Information Systems, August 12-15, 2010, Lima, Peru.
- Associate Editor, Information Technology in Health Care Track, International Conference on Information Systems, December 15-18, 2009, Phoenix, AZ.
- Program Committee and Best Paper Selection Committee, International Conference on Information Quality, November 14-16, 2008, Cambridge, MA.
- Program Committee and Best Paper Selection Committee, International Conference on Information Quality, November 9-11, 2007, Cambridge, MA.
- Program Committee, Australasian Conference on Information Quality, August 23-24, 2007, Adelaide, Australia.
- Workshop Advising Committee, Workshop on Enterprise Systems Research in MIS, held in conjunction with the International Conference on Information Systems, December 10, 2006, Milwaukee, WI.
- Associate Editor, Breakthrough Ideas in Information Technology Track, International Conference on Information Systems, December 10-13, 2006, Milwaukee, WI.
- Program Committee and Best Paper Selection Committee, International Conference on Information Quality, November 10-12, 2006, Cambridge, MA.

Associate Editor, Human-Computer Interaction Track, International Conference on Information Systems, December 11-14, 2005, Las Vegas, NV.

Program Committee, International Conference on Information Quality, November 4-6, 2005, Cambridge, MA.

Mini-Track Co-Chair, Enterprise Systems Organizational Issues, Sponsored by SIGEntSys, AIS Americas Conference on Information Systems, August 11-14, 2005, Omaha, NE.

Program Committee, International Conference on Information Quality, November 5-7, 2004, Cambridge, MA.

Counselor, MIS Camp (Pre-AMCIS Junior Faculty Consortium), August 5, 2004.

*Journal of Database Management (JDM)*, Editorial Review Board, 2002-

AIS Americas Conference on Information Systems, Executive Committee, 2000-2004.

Program Committee, Workshop on Information Technology and Systems, December 2001, New Orleans, LA.

Program Co-Chair, AIS Americas Conference on Information Systems, August 3-5 2001, Boston, MA.

Program Committee, Conference on Information Quality, October 20-22, 2000, Cambridge, MA.

Program Committee, International Conference on Information Systems, December 12-15, 1999, Charlotte, NC.

Program Committee, Conference on Information Quality, October 22-24, 1999, Cambridge, MA.

Mini-Track Co-Chair, Customization and Implementation of ERP Systems, AIS Americas Conference on Information Systems, August 13-15, 1999, Milwaukee, WI.

Program Committee, Workshop on Adaptive Workflow Systems, 1998 Conference on Computer-Supported Cooperative Work, November 14, 1998, Seattle, WA.

Program Committee, Conference on Information Quality, October 23-25, 1998, Cambridge, MA.

Program Committee, Seventh Workshop on Information Technologies and Systems, December 1997, Atlanta, GA.

Program Co-Chair, Conference on Information Quality, October 24-26, 1997, Cambridge, MA.

General Area Chair for Research-in-Progress - Organizational, Association for Information Systems Conference (AIS-96), August 16-18, 1996, Phoenix, AZ.

Program Committee, Third Workshop on Information Technologies and Systems, December 1993, Orlando, FL.

Program Committee, First Workshop on Information Technologies and Systems, December 1991, Cambridge, MA.

**Session Chair, Discussant, Panel Moderator Activities:**

Session Chair, International Conference on Information Systems, December 15-18, 2013, Milan, Italy.

Session Chair, AIS Americas Conference on Information Systems, August 15-17, 2013, Chicago, IL.

Session Chair, AIS Americas Conference on Information Systems, August 9-11, 2012, Seattle, WA.

Session Chair, AIS Americas Conference on Information Systems, August 5-7, 2011, Detroit, MI.

Session Chair, AIS Americas Conference on Information Systems, August 12-15, 2010, Lima, Peru.

Table Leader, SigHealth Workshop at the Americas Conference on Information Systems, August 6, 2009.

Session Chair, IFIP Working Group 8.2 Oasis Workshop, December 9, 2007, Montreal, Canada.

Session Chair, International Conference on Information Quality, November 10-12, 2006, Cambridge, MA.

Discussant, International Conference on Information Systems, December 11-14, 2005, Las Vegas, NV.

Session Chair, International Conference on Information Quality, November 4-6, 2005, Cambridge, MA.

Panel Moderator, "Teaching with Enterprise Systems", Panel Summary in the *Proceedings of the Americas Conference on Information Systems*, August 11-14, 2005, Omaha, NE, pp. 3632.

Session Chair, Americas Conference on Information Systems, August 11-14, 2005, Omaha, NE.

Session Chair, Decision Sciences Institute Annual Meeting, November 20-23, 2004, Boston, MA.

Session Chair, International Conference on Information Quality, November 5-7, 2004, Cambridge, MA.

Discussant, International Conference on Information Systems, December 16-19, 2001, New Orleans, LA.

Session Chair, Workshop on Information Technology and Systems, December 15-16, 2001, New Orleans.

Discussant, International Conference on Information Systems, December 10-13, 2000, Brisbane, Australia.

Discussant, International Conference on Information Systems, December 12-15, 1999, Charlotte, NC.

Session Chair, "ERP Implementation: Frameworks", AIS Americas Conference on Information Systems, August 13-15, 1999, Milwaukee, WI.

Panel Moderator, "Data Quality: A Critical Research Issue for the 1990's and Beyond", Fifteenth International Conference on Information Systems (ICIS), December 14-17, 1994, Vancouver, Canada.

Panel Moderator and Session Chair, "Data Quality Research and Practice", TIMS/ORSA, Spring 1994, Boston, MA.

Session Chair, "Database Systems" ORSA/TIMS, Fall 1990, Philadelphia, PA.

Session Chair, "Computer Science II" ORSA/TIMS, Fall 1990, Philadelphia, PA.

#### **Reviewer for:**

NSF Panels in January 2003, November 2003, July 2005, June 2010, August 2013

NSF Reviews in October 2007, May 2009

*Information Systems Research (ISR)*, *Communications of the ACM (CACM)*,

*Management Information Systems Quarterly (MISQ)*, *Management Science*,

*Organization Science*, *Information and Organization*, *European Journal of Information Systems (EJIS)*,

*Journal of Systems and Software (JSS)*, *IBM Systems Journal*, *Sloan Management Review*,

*Database*, *Journal of Database Management (JDM)*, *Decision Sciences*, *Decision Support Systems (DSS)*,

*Journal of Strategic Information Systems (JSIS)*, *Information Systems Journal*,

*IEEE Transactions on Knowledge and Data Engineering*, *IEEE Transactions on Engineering Management*,

International Conference on Information Quality (ICIQ),

Australasian Conference on Information Quality (AusIQ),

Workshop on Information Technologies and Systems (WITS),

International Conference on Information Systems (ICIS),

Americas Conference on Information Systems (AMCIS),

Hawaii International Conference on Systems Sciences (HICSS)

#### **Professional Societies:**

Association for Information Systems (AIS), Member

AIS Council, Elected Representative for the Americas Region, 2002-2004

AIS Special Interest Group for Health Information Technology (SIGHealth)

Chair, SIGHealth Nominating Committee, 2010-2011

AIS Special Interest Group for Enterprise Systems (SIGES),

Member SIGES Council, 2004-2007

AIS Special Interest Group for Human Computer Interaction (SIGHCI),

Member SIGHCI Advisory Committee 2002-2005

AIS Special Interest Group for Data and Information Quality

**Awards, Honors, and Prizes:**

WPI Trustees Award for Outstanding Research and Creative Scholarship, 2014  
Sigma Xi The Scientific Research Society, 2008  
Sigma Beta Delta Business and Management Honor Society, 1997  
Beta Gamma Sigma Business and Management Honor Society, 1990  
Society for Information Management Doctoral Consortium Fellow, 1983  
IBM Fellowship in Information Systems, 1982-1983 and 1984-1985  
William Larimer Mellon Ph.D. Fellowship, 1981-1982 and 1983-1984  
Upsilon Pi Epsilon Computer Science Honor Society, 1977  
Phi Beta Kappa, 1974  
Pi Mu Epsilon Mathematics Honor Society, 1974  
Pell Scholarship for Outstanding Mathematics Students, 1973-1974