Management
Information Systems
Research Center

2003-2004 Annual Report

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A Message
From the Director

May 2004

During Winter and Spring 2004, MISRC Assistant Director Donna Sarppo and I, in consultation with the faculty of the Information and Decision Science Department, the MISRC 2003-2004 member firms, and other industry and university colleagues, developed a new business model for the MISRC.

We now have three components in the MISRC’s main offerings: the continuing Friday Seminar Series on “Emerging Technologies,” and two new research projects, with their associated Friday Seminar Series speakers and Research Roundtables. During the 2004-2005, we will be covering a variety of interesting topics, including: technology options in business strategy, information technology security, grid and utility computing, enterprise systems modernization, and more. We have a great line-up of speakers in store.

We kicked off our first research project—the “Outsourcing Research Project”—in early September, with a presentation on offshoring and vendor management by Praba Manivasagar of Renodis One. We followed that up with a lunch meeting, and a videolinked Research Roundtable discussion. The project’s faculty leader, Professor Mani Subramani, Donna and I recently sent out a project plan that aims to develop a “vendor management competency model” that we hope will be of use to our corporate members. We also have begun to develop a new training program in vendor management through the Carlson School’s Executive Development Center.

The second is the “RFID Research Project.” It covers radio frequency identification technologies—RFID—and the technological and managerial issues that relate to their evolution, adoption and diffusion, and their profitable exploitation in different business process settings. Mike Nichols, a senior manager at Texas-based RFID hardware/software provider Intermec, visited the MISRC in October and gave the equivalent of a one-morning college “short course” on RFID technologies and the related managerial issues and challenges. We followed this up with a discussion luncheon and a second Research Roundtable. The dialogue centered on how to create the business case for RFID when the benefits are diffused across multiple firms and the technical standards are in a state of flux. We also share views about how the technologies will evolve, and the difficulties associated with assuring performance reliability and business process value.

Thank you for your contributions to the MISRC, and your organization’s financial support. We look forward to delivering some interesting results on the Research Projects in Spring 2005.

Robert J. Kauffman
Director, MIS Research Center
Professor and Chair, Department of Information and Decision Sciences
A Message
From the Dean

May 2004

Information technology continues to be a key driver of productivity gains and business innovation in America’s economy. But today, the difficulties that senior managers face with organizational decision making related to information systems and new technology have been heightened by economic and competitive forces. They strain management’s capacity to cope with change.

The MIS Research Center plays a central and highly visible role in the Carlson School’s overall efforts to guide the discussions that will lead to improvements in managerial capabilities and firm performance in this environment. One of the central roles of the MISRC is to provide a forum that brings together industry professionals with nationally-recognized technology experts, as well as our faculty and graduate students, to understand these new developments, and to contribute to their and their companies’ effectiveness. A second role is to foster basic and applied research that potentially delivers new managerial knowledge about information systems, information technology and electronic commerce.

I am especially grateful to the Associate Companies who fund the activities of the MISRC.

Your commitment, participation and input make it possible for the Carlson School of Management to be recognized both regionally and nationally for its research, teaching and outreach excellence. In April 2004, U.S. News and World Report rated the Carlson School as #21 among business school in the United States in terms of its MBA program. Our Information Systems area was ranked #4, maintaining a longstanding position among leading departments in the nation. I continue to believe that your participation with us enriches the courses we teach, encourages the faculty to do cutting-edge and highly relevant research, and challenges the Carlson School to be in touch with the changes in business that will matter the most.

I also want to recognize the efforts that the MISRC’s co-directors and staff members have undertaken this past year.

The MISRC’s new leadership approach reveals a strengthened commitment to alignment with our school’s multiple internal and external constituencies. This also helps the Carlson School to complement the University of Minnesota’s strategy of promoting research on digital technology. Finally, it will provide a means for the MISRC to achieve greater recognition for its research among information technology and e-business research centers at the leading business schools around the world.

Best wishes for another great year in 2004-2005!

Larry Benveniste
Dean
Carlson School of Management
The MISRC Corporate Partners
2003-2004

Cargill, Incorporated
General Mills, Incorporated
Mayo Clinic
SuperValu
Target
Thomson West

The MISRC Emerging Technologies Partnership
2003-2004

Honeywell, Incorporated
Unisys
University of Minnesota
Office of Information Technology
The MISRC’s History

The University of Minnesota’s Management Information Systems program and the Management Information Systems Research Center began 35 years ago. It is always difficult to say who was “first.” What we can say with certainty is that we began at the time when MIS was first emerging as an academic field. We may have been the first formal graduate degree program in MIS (Master’s and Doctorate) associated with a viable research center.

The Beginning of the MIS Research Center

The fall of 1967 was the start of planning. U of M professors Gordon Davis, Gary Dickson, and Tom Hoffmann felt that the time and place were right to establish a formal program in the organizational use of computers in information systems. To start a program with solid support from IS professionals working in industry, the local business community needed to play a strong part in curriculum development and applied research, a link that would be facilitated through the formation of a “research center.”

Selected companies in the Minneapolis-St. Paul area, notable for being internationally known and investing heavily in information systems, were invited to pledge support as “Associate Companies” of the MISRC. As sponsors, companies would have a direct influence on the directions taken by the university program, as well as having direct access to graduates from the program, research outputs, and training programs. The response from the business organizations was excellent, and by the summer of 1968, the Management Information Systems Research Center had been established with 21 founding Associate Companies.

From the outset, the Associate Companies were involved in the selection and direction of research and program topics. Since that first year, annual planning meetings with Associate Company representatives have assisted the research and program directions of the MISRC to continue to shift with changing industry conditions as reported by the Associate Company representatives. The first year featured lectures by nationally known speakers, including Alain Enthoven of Stanford University and James Emery of the University of Pennsylvania. This speaker series evolved to become one of the core activities of the MISRC Associates Program.

Organizational Changes As We Grew

The MISRC was originally granted windowless office space in the basement of Blegen Hall on the university’s West Bank campus, next door to a computer center with a CDC 3200 (purchased in 1968 partly with MISRC funds). Gordon Davis became the first director of the Research Center.

As director, he reported directly to the dean of the School of Management (then the College of Business Administration). Two part-time secretaries provided support; graduate assistants helped wherever needed.

After the first two years of operation, it became clear that a senior faculty member alone could not adequately perform all of the needed MISRC functions while still being involved with teaching, research, and doctoral students. In response, the position of assistant director was created. Through the years, this invaluable position has been filled both by University appointees and by Associate Company personnel.

March 1977 saw the first issue of the MIS Quarterly, a journal established through a joint venture of the MISRC and the Society for Information Management, and based out of the MISRC offices. The MISQ is a journal that caters to both the academic and practitioner IS communities.

James Wetherbe, formerly associate dean of administration and associate professor of MIS at the University of Houston, came to the U of M MIS faculty in July 1980 and became the new director of the MISRC, bringing with him valuable management experience in industry and administrative experience at several universities. This enabled Gordon Davis to devote more time to leadership of the MIS academic area, and in 1981 Davis became Honeywell Professor of Management Information Systems, the first holder of the first academic endowed chair specifically designated for MIS, fittingly bestowed upon a pioneer of MIS in academia.

1985 brought the MISRC and MISQ a home on the third floor of the new Hubert H. Humphrey Center. Besides having windows for the first time, the move brought the MISRC onto the same floor as the MIS faculty.

In December 1997, we moved into the new Curtis L. Carlson building. The new building provides a home for the entire Carlson School of Management in one building (CSOM previously inhabited portions of three different West Bank buildings).

The MISRC Today

The MISRC has grown as new companies continue to join the Associates Program. We continue to update our topics and offerings to address current issues of our Associate Companies, and by extension, the corporate IS world. The 36 years have been eventful and productive, and we are pleased to have been a significant factor in the development of information systems as an academic field.
MISRC Corporate Partners Program
Calendar of Events
2003-2004

October 3, 2003  “Information Security and Privacy: An Issue at the Heart of Business and Technology Convergence”
Sharon O’Bryan
O’Bryan Advisory Services, Inc.

October 24-25, 2003  “Managing IT in Networked Organizations”
MIS Fall Conference - Co-Sponsored w/ University of Arizona

Paulo Goes, Operations and Information Management, University of Connecticut

November 21, 2003  “Interpreting and Managing the Business Risks in International Outsourcing”
Matthew Hunt, Vice President of Information Technology Resource Management Group, Morgan Stanley

February 6, 2004  “Establishing an Effective Customer Relationship Management-Based Organizations”
Gino Giovannelli, Vice President of e-Business Solutions, Carlson Companies

Ram Akella, University of California, Silicon Valley Center/SantaCruz

February 21, 2004  “How IT can Implement and Benefit from Six Sigma”
Pete Jacobs, 3M

March 14-15, 2004  Knowledge Management Research Symposium

April 4, 2004  “Identifying and Creating Usable Cutting-edge IT Solutions”
Alok Gupta, IDSc, U of MN, Carlson School

April 23, 2004  “Advances in Data Storage”
Thomas M. Ruwart, Digital Technology Center, University of Minnesota
ABSTRACT

Consumers and business leaders are stepping up efforts to ensure that their personal, confidential, and business critical information is protected from unauthorized access and use. Concerns regarding identity theft and terrorism have significantly escalated the issue information protection. Technology controls are at the center of the issue. Have businesses adequately made the transition from manual operational controls to controls that properly protect information dissemination enabled by technology? Have the cost savings of implementing technology been partially due to the elimination of adequate control process engineering?

This seminar will cover privacy and information protection issues from multiple perspectives. We will analyze the Gramm-Leach-Bliley Act (Section 501b) and the Health Insurance Portability and Accountability Act of 1996. Participants will also have an opportunity to propose and explore hypothetical case studies. The seminar will engage the participants as individual citizens, business leaders, and investors therefore the seminar will be valuable to a wide audience rather than an industry focus. While G-L-B-A and HIPAA will be used to focus the group on key issues of information protection, the seminar will be highly focused on identifying "critical" and "sensitive" information and the risks associated inadequate controls.

BIOGRAPHY

Sharon is the President and CEO of O'Bryan Advisory Services, Incorporated - a company she established as she transitioned out of her role as Senior Vice President and Chief Information Technology Security Officer (CITSO) with ABN AMRO North America. O'Bryan Advisory Services, Inc. focuses on providing technology risk advisory services to "C-Level Executives", Boards and Board members. These services enable the executive management team to identify viable options and direct effective implementation of risk management solutions that appropriately balance the business strategy, use of technology, feasibility of traditional risk management processes, and compliance with new regulations and laws such as Gramm-Leach-Bliley and Sarbanes-Oxley.

During her career Sharon has been a highly visible and active participant in executive strategy, operations oversight, and governance committees. At ABN AMRO she was a lead member of global and regional Policy and Standards Committees as well as the Chief Privacy Officer of the ABN AMRO Services Company. Sharon's role at ABN AMRO also included notable tenure as the department head of the Technology Risk Management Group delivering ground-up integrated solutions for technology control architecture, engineering, operations and provisioning of technology-related controls, technology recovery and business continuity.

In addition, Sharon has been a leader in the Financial Services Industry through her initiation, and Co-Chair role, in developing the BITS Outsourcing Risk Management Framework. She was also a member of the Microsoft CSO Working Group teaming with Microsoft in their efforts to establish a heightened focus and delivery of secure products. Sharon was also a contributor to the Banking and Finance Sector National Strategy for Critical Infrastructure Assurance coordinated by BITS in response to Presidential Decision Directive 63 (PDD-63). She has been quoted in Database Trends and Applications, InformationWeek, and Bank Systems & Technology magazines. Sharon has also been part of the select BITS team to brief Richard Clarke, President Bush's Advisor on Cyber Security, on matters associated with IT Service Provider relationships in the Financial Services Industry.

Sharon has over twenty years of experience in information technology controls design and implementation. She has four years of IT audit experience and three years of consulting experience both with public accounting organizations. Seventeen years of Sharon's IT experience has been with financial institutions.

Sharon has a Masters of Business Administration with a Concentration in Organizational Behavior, a Masters in Management Information Systems and is a Certified Information Systems Auditor. She also has a Certification in eCommerce Law and is currently pursuing a Masters in Theology.
ABSTRACT

Under intense pressure to reduce costs and possibly gain efficiency, IT and other service organizations are looking to adopt geography and time independent solutions for their operations. Examples of such solutions include: offshore outsourcing of software development; offshore call centers; virtual operations, where workers are geographically dispersed, possibly working from their homes; flexible workforce approaches. In many scenarios, mobility of the workers is essential, so there are solutions that range from hybrid office/hotel/home office approaches to a seamless mobility of "everywhere, all the time" connectivity.

Based on my experience in the last 4 years working on projects for General Electric through the University of Connecticut / GE edgelab partnership, I will overview technology, infrastructure, industry directions, applications, implementations, as well as the main issues associated with the organizational and economic feasibility of some of the solutions.

BIOGRAPHY

Dr. Paulo B. Goes, Professor of Operations and Information Management, is the Gladstein Professor of Information Technology and Innovation at the School of Business of the University of Connecticut. As Associate Director of the Connecticut Information Technology Institute, he played a fundamental role in the conceptualization and implementation of edgelab, a multi-million dollar e-business partnership between General Electric and UConn. Dr. Goes also conceptualized and is now the director of the endowed Treibick Electronic Commerce Initiative (TECI), a top-notch research unit dedicated to the advancement of knowledge in e-commerce.

From 1996 to 1999 he was the Technology Director of UConn’s School of Business.

Dr. Goes received his M.S. and Ph.D. degrees in Computers and Information Systems from the University of Rochester. He also has a M.S. degree in Production Engineering from the Federal University of Rio de Janeiro, Brazil. He has been teaching information technology courses in the areas of e-business, database management, client/server systems, networking, and management information systems at the University of Connecticut since 1990. He teaches at all academic levels and has received several teaching awards for his teaching excellence. His research interests are in the areas of design and evaluation of models for e-business, online auctions, database recovery and security, Internet technologies and electronic commerce, computer networking and technology infrastructure. His publications have appeared in highly prestigious journals such as Management Science, Management Information Systems Quarterly, Operations Research, Decision Sciences, Journal of Management Information Systems, Communications of the ACM, IEEE Transactions on Computers, IEEE Transactions on Communications, INFORMS Journal on Computing, Decision Support Systems, Information Technology and Management among others and in several conference proceedings and book chapters. Dr. Goes is Associate Editor of Information Systems Research, the INFORMS Journal on Computing, and Production and Information Management. He has served as guest Associate Editor of Management Science special issue on e-business and is on the editorial board of the Journal of Database Management. He also constantly participates in organizing committees for the International Conference of Information Systems, the International Conference on Conceptual Modeling and the Workshop on Information Technology and Systems.
ABSTRACT

In the past three years, American firms have been increasingly making the choice to outsource IS development and IT support to foreign countries, in an effort to control costs and improve on-time delivery of software that meets the mark in terms of quality. Some knowledgeable observers point to India and China as offshore locations that offer some of the best new development talent—with the potential to become even more competitive than the high quality software development human capital that is currently available in North America.

This seminar will feature Morgan Stanley Vice President, Matt Hunt, a specialist in outsourcing and vendor management. He will present his personal perspective on recent trends and developments in international outsourcing, based on his experience over the last five years at the New York-based financial services powerhouse. A central message associated with his interpretation of what has been happening involves his assessment of the critical business risks that are inherent in international outsourcing, and the management strategies that are necessary to keep them under control. This background will be set up a “business case” that seminar participants will discuss in breakout sessions, and in a final plenary session.

In addition to Matt Hunt, MISRC Director Rob Kauffman will briefly present a related managerial perspective that argues in favor of applying “portfolio management” principles, including risk frontier analysis, risk and diversification thinking, and performance variance drivers, as a means to diagnose and control organizational exposure to the multiple risks of outsourcing.

MISRC Research Project Members and IDS Department doctoral students, Kunsoo Han and Bin Wang, will also participate and facilitate. Kunsoo Han will discuss recent advances in IS research that will lead to new thinking about how to make outsourcing vs. build-to-own decisions for application software and key elements of IT infrastructure. Bin Wang will provide a brief overview of what’s going on with software outsourcing to China and other Southeast Asian countries, and offer some of her thinking on opportunities for geographical diversification of risk.

BIOGRAPHY

Matt Hunt has been the Vice President in Morgan Stanley’s Information Technology Resource Management Group over the last 6 years. He has helped to build an IT outsourcing program that now supplements Morgan Stanley’s already robust employee staffing model. The Resource Management Group in which Matt works covers all aspects of outsourcing relationships. These areas include internal client coverage, vendor selection, contract and rate negotiation, risk management, infrastructure deployment, internal accounting and controls, day-to-day vendor management, vendor performance analysis, and development of the Firm’s IT sourcing strategy.

Prior to joining Morgan Stanley, Matt worked in IT systems development and internet technology consulting. Matt holds both a BS in Management Information Systems and an MBA in Strategic Management & Organization from the Carlson School of Management.
ABSTRACT

Despite being the buzz acronym of 2003, many companies have struggled implementing effective Customer Relationship Management (CRM) solutions. At first, this may seem strange considering that the philosophy of CRM is quite simple: determine who are your best customers from a potential lifetime value perspective and then develop deep relationships with them in order to maximize their actual lifetime value.

Sounds easy right? So what's so hard about that?

Take a journey with Gino Giovannelli, a specialist in the area of CRM and e-Business at the Carlson Companies, and learn first hand the challenging steps that the Carlson Companies have taken to implement CRM. He will emphasize both the strategic aspects of building a customer-centric organization and the organizational issues that had to be dealt along the way to achieve success. He will cover the following:

- Educating your organization on what CRM is and (more importantly) what it is not
- Identifying CRM opportunities within your organization
- Project investment evaluation practices for CRM related projects
- Determining what aspects of CRM are best done internally vs. externally
- Establishing effective organizational strategies to maximize the success of CRM
- Measuring the results of CRM that are accurate and understandable
- Organizational design and technology issues

Gino encourages seminar participants to come prepared to share their own organizations' experiences with implementing CRM.

BIOGRAPHY

Gino Giovannelli is currently Vice President of e-Business Solutions and a member of the Carlson Companies enterprise wide Relationship Management and Development team. In this role, he has been responsible for establishing and implementing effective e-business strategy for the Carlson's Companies' hotel division (Radisson Hotels & Resorts, Country Inn & Suites, Park Inn, Park Plaza, and Regent Hotels International), cruise division (Radisson Seven Seas Cruises) and restaurant division (TGI Fridays and Pick up Stix). Prior to that, from 1999 until 2001, he was a Director of e-Commerce at Radisson Hotels & Resorts.

Giovannelli received a Bachelor of Science in Mechanical Engineering from Bucknell University in 1990, and also attended the Institute for European Studies in Vienna, Austria in 1990. He is also a 1996 graduate of the MBA Program at the Carlson School of Management at the University of Minnesota, and completed the Carlson Companies Executive Leadership Program in the Executive Development Center of the Carlson School in 2000.

He has a rich background of business experience, especially in the areas of Information Systems, Electronic Commerce and Marketing. Out of college, Giovannelli held various positions in sales and marketing in the plant automation field prior to jumping on the bandwagon in 1997 and "doing the dot com thing" with a Minneapolis-based startup company named e.Media Group, where he was Vice President of Business Development. The company specialized in the development of Web sites and multimedia CD-ROM products, and is still in operation today as a full-service new media agency.
ABSTRACT

The use of information technology in the support of new product development is widely recognized as one of its most effective uses in creating strong firm profitability. Professor Ram Akella's presentation will stress the importance of the role of cross-enterprise learning support in the process of new product introductions, and the systems that provide support. It also will involve an in-depth assessment of how to use information systems to support new product introduction at a large automotive industry supplier, Delphi HVAC. (Interested participants may want to visit the firm's website at delphi.com for an overview of its business and product capabilities.

BIOGRAPHY

Prof. Ram Akella is currently Professor and Director of Information Systems and Technology Management, at the University of California at Silicon Valley Center/Santa Cruz, and was Founding Director, SUNY Center for Excellence in Global Enterprise Management. At Stanford, and also at Berkeley, and Carnegie Mellon, as a faculty member and Director, Prof. Akella has led major multi-million dollar interdisciplinary team efforts in High Tech and Semiconductors. He joined the faculty at Carnegie Mellon University in 1985 as an Associate Professor in the Graduate School of Industrial Administration and the School of Computer Science (Robotics Institute) at Carnegie Mellon University in Pittsburgh, Pennsylvania. He research and teaching at Stanford University have been in High Tech, IT, Knowledge Management, Semiconductors, Cost Competitiveness, Product Life Cycle Management, Supply Chain Management, Financial Engineering and Investment, Business Process Optimization and E-Business. At the University of California at Berkeley he has taught in Industrial Engineering and Operations Research, and conducted research on Semiconductor Process Learning. He has also been a Postdoctoral visitor at Harvard University and worked at M.I.T., Cambridge (EECS/LIDS and the Leaders for Manufacturing Program). Professor Akella completed his B.S. in Electronics at I.I.T. Madras, and a Ph.D. in Systems/EECS at I.I.Sc. Bangalore. His doctoral students have gone on to teach at major schools such as Northwestern, Michigan (Ann Arbor), NYU, USC, Dartmouth, and the London Business School, and to work at major corporations such as IBM, KLA-Tencor, TSMC, ABN/AMRO, and BCG, while masters students have gone on to become Vice Presidents of major corporations, such as AT Kearney.

Prof. Akella's current research interests include in knowledge management, process learning, quality, fab economic models, cost of ownership and financial justification for IT Management and equipment, production planning and control, and bio-informatics. His other interests are Enterprise Systems, IT and Software, Financial Engineering, High Tech and E-Business, and range from cell and factory level design and control to enterprise-wide coordination and logistics, including supply chain management and contracts, financial engineering and investment, demand management, E-Commerce and E-Business exchanges, and product and process portfolios for risk management and design capacity management.

He has received several awards, such as the IBM Faculty Award, the AMD Research Award, and the KLA Award, has been cited in Marquiss' Who's Who, and has interacted extensively with industries, including those corporations such as AMD, TI, IBM, Digital, Hyundai, LSI Logic, HP, AT&T, KLA, Applied Materials, SRC, American Axle, Delphi Automotive, General Motors, and Rich Food Products, along with various Japanese and European companies. In leading the STPI-Stanford/SUNY study on IT Outsourcing, he has interacted with many of the US software companies and their Indian suppliers. He has also lectured extensively by invitation in Europe and the Pacific Rim including Japan, Taiwan, Korea, and Singapore. He is on the Technical Advisory Council of Yield Dynamics, and boards including E-Soft. He enjoys helping companies grow and become more profitable, and is delighted when executives give him stock as a token of appreciation.

Professor Akella has served as an Associate Editor for Operations Research and IEEE Transactions on Semiconductor Manufacturing, and has been on the Editorial Board of Technology and Operations Review. He has also served as Guest Editor for IEEE Robotics and Automation: Special Issue on Manufacturing Systems.
ABSTRACT

We are drowning in data - there is no doubt about it. In the past 5 years we have invented more ways to create and store data than have existed in all of history. But due to our very nature we have not figured out how to throw any of this data away. We keep everything! Let's face it, data and stored information are becoming an intricate part of our daily lives and we will have to simply learn to live with it. One significant problem with keeping every bit of data we every came across is how will we ever find anything we need in a day, a week, a month, or a year from now? Furthermore, how do we find anything "inside" the data files? The Google Paradox states that we can find a specific item of information faster on the web using a Google search than we can on our own personal computer! Why is that?

This talk is not only intended to answer that question (answer: "I don't know") but also to describe various dimensions of advances in data storage technologies and how these advances will help with data search and retrieval, hopefully within our lifetime. These technologies include storage media (disk drives, tape drives, flash cards, ...etc.), file systems, protocols, and intelligent storage systems. This talk will take you through advances of each of these technologies and present a vision of where they could lead. It is important to remember, however, that there is a fine line between a “vision” and an “halucination.”

BIOGRAPHY

Tom Ruwart has over 26 years of experience in the computer and storage industry starting in 1977 with Control Data Corporation. His experience spans hardware and software from IBM mainframe disk drives to large supercomputer-class storage systems. Aside from Control Data, Tom has worked for a start-up company, Edge Computer Corporation, The Minnesota Supercomputer Center, the University of Minnesota Laboratory for Computational Science and Engineering, and Ciprico.

Tom is currently at the University of Minnesota's Digital Technology Center (DTC) coordinating the formation of the DTC Intelligent Storage Consortium (DISC) as well as consulting on several large-scale government-funded storage projects. These projects include the NASA Remote Data Store (RDS) - a 5PB long-term archive for satellite image data, the DoE ASCI Lustre Project (www.lustre.org), and the Fermi National Accelerator Lab Compact Muon Solenoid (CMS) - a high energy physics experiment that will generate 10-30PB/year of dense data. His consulting consists primarily of understanding the architectural, technical, and business issues surrounding the emerge, application, and integration of truly intelligent Object-based Storage Devices (OSD) into these environments. However, he also continues to consult for a variety of organizations and companies on disk I/O and file system performance related issues in theory and in practice. To that end, Tom is the author of the xdd disk I/O performance characterization program used by many companies and academics performing detailed I/O characterization studies.

As part of his work in the storage industry Tom is actively involved in the Storage Networking Industry Association (SNIA) Object-based Storage Device (OSD) Technical Working Group (TWG) (previously chaired this group and now chairs the education subgroup for the OSD TWG) and the IEEE Mass Storage Systems Technical Committee (program committee chair for the 2003 IEEE/NASA Mass Storage Symposium). All these activities are focused on driving the research, development, and deployment of intelligent storage technologies, applications, and markets.
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Seminar Attendance in Recent Years

Year  | Number of People
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94-95 | 1600
95-96 | 800
96-97 | 1000
97-98 | 1000
98-99 | 1000
99-00 | 800
00-01 | 800
01-02 | 600
02-03 | 500
03-04 | 400
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- Research Notes
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- MISQ Discovery, which contains an experimental forum for knowledge creation and dissemination through the use of word-wide information network.

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Led by Gordon B. Davis as publisher/executive editor, the MIS Quarterly is staffed by Jan DeGross, production manager; Jennifer Syverson, review coordinator; and Brittany Feser and Justine Ngo, subscription coordinators.
2003-2004 MISQ ARTICLES

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SEPTEMBER 2003
“From the Vendor’s Perspective: Exploring the Value Proposition in Information Technology Outsourcing”
Natalia Levina and Jeanee W. Ross
“Trust and the Unintended Effects of Behavior Control in Virtual Teams”
Gabriele Piccoli and Blake Ives
“The Influence of Query Interface Design on Decision-Making Performance”
Cheri Speier and Michael G. Morris
“User Acceptance of Information Technology: Toward a Unified View”
Viswanath Venkatesh, Michael G. Morris, Gordan B. Davis, and Fred D. Davis

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Rajeev Sharma and Philip Yetton
“The Disruptive Nature of Information Technology Innovations: The Case of Internet Computing in Systems Development Organizations”
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Ravi Bapna, Paulo Goes, Alok Gupta, and Yiwei Jin
“How Do Suppliers Benefit from Information Technology Use in Supply Chain Relationships?”
Mani Subramani

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Terri C. Albert, Paulo Goes, and Alok Gupta
“A Field Study of the Effect of Interpersonal Trust on Virtual Collaborative Relationship Performance”
David L. Paul and Reuben R. McDaniel, Jr.
“Understanding Changes in Belief and Attitude Toward Information Technology Usage: A Theoretical Model and Longitudinal Test”
Anol Bhattacharjee and G. Premkumar
“The Effect of Relationship Encoding, Task Type, and Complexity on Information Representation: An Empirical Evaluation of 2D and 3D Line Graphs”
Nanda Kumar and Izak Benbasata
Nigel Melville, Kenneth Kraemer, and Vijay Gurbaxani
The MISRC Working Paper Series is a primary communications medium with business, government, and educational institutions. Papers in this series are preliminary publications of major research conducted by MIS faculty and select papers prepared by graduate students and discussion groups.

Hard copies of these papers are distributed worldwide in a cooperative Working Paper Exchange with other research institutions and business schools, as well as to individual and institutional subscribers. Each MISRC Associates Company receives a copy for their corporate library.

Beginning with the 2001-2002 academic year, all newly published MISRC Working Papers will also be available for download via the MISRC web site at http://misrc.umn.edu/workingpapers/workingpapers.htm which also includes an index of MISRC Working Paper back issues.

04-16 Quantity and quality: understanding contribution of knowledge to public document repositories
Mani Subramani and Naren Peddibhotla

04-15 Validation Sequence Optimization: A Theoretical Approach
Gediminas Adomavicius and Alexander Tuzhilin

04-14 Heuristics for Selecting Robust Database Structures with Dynamic Query Patterns
Andrew N. K. Chen, Paulo B. Goes, Alok Gupta and James R. Marsden

04-13 Rational Expectations, Optimal Control And Information Technology Adoption
Yoris A. Au and Robert J. Kauffman
Forthcoming in Information Systems and E-Business Management

04-12 Advising and Supervising Doctoral Students: Lessons I Have Learned
Gordon B. Davis
Forthcoming as chapter in PhD Supervisors and Student Handbook for Information Systems Research, Butterworth-Heinnemann, 2004

04-11 Information Exploitation And Interorganizational Systems Ownership
Kunsoo Han, Robert J. Kauffman and Barrie R. Nault
Forthcoming in Journal of Management Information Systems 21(2), Fall 2004

04-10 The Evolution Of Research On Information Systems: A Fiftieth Year Survey Of The Literature In Management Science
Rajiv D. Banker and Robert J. Kauffman
Another version of this paper is published in Management Science 50(3), March 2004, 281-298

04-09 Should We Expect Less Price Rigidity In The Digital Economy?
Robert J. Kauffman and Dongwon Lee
An earlier short version of this paper was presented in the Electronic Marketing mini-track and appeared in the Proceedings of the 37th Hawaii International Conference on System Science (HICSS-37), held in January 2004.
04-08  The Effects Of Shilling On Final Bid Prices In Online Auctions
Robert J. Kauffman and Charles A. Wood
Forthcoming in Electronic Commerce Research and Applications, 2005

04-07  Does One Wireless Standard Promote Faster Growth?
Robert J. Kauffman and Angsana A. Techatassanasoontorn
An earlier version of this paper was presented at the Electronic Marketing Mini-track of Hawaii International Conference on System Sciences (HICSS-37), where it won the "Best Research Paper Award."

04-06  Analyzing Interorganizational Information Sharing Strategies In B2b E-Commerce Supply Chains
Robert J. Kauffman and Hamid Mohtadi
An earlier version of this paper was presented at INFORMS CIST, October 2003, Atlanta, GA, where it won the "Best Paper Award."

04-05  Transparency Strategy In Internet-Based Selling
Nelson Granados, Alok Gupta and Robert J. Kauffman

04-04  Incorporating Contextual Information In Recommender Systems Using A Multidimensional Approach
Gediminas Adomavicius, Ramesh Sankaranarayanan, Shahana Sen and Alexander Tuzhilin

04-03  Propriety and Open Systems Adoption In E-Procurement: A Risk-Augmented Transaction Cost Perspective
Robert J. Kauffman and Hamid Mohtadi
Forthcoming in the Journal of Management Information Systems, Summer 2004

04-02  GIST: A Model for Design and Management of Content and Interactivity of Customer-Centric Web Sites
Terri Albert, Paulo Goes, and Alok Gupta
Forthcoming in MIS Quarterly

04-01  An Empirical Study of Consumer Switching from Traditional to Electronic Channel: A Purchase Decision Process Perspective
Alok Gupta, Bo-Chiu Su, and Zhiping Walter
Forthcoming in International Journal of Electronic Commerce

03-45  Doing Their Bidding: An Empirical Examination Of Factors That Affect A Buyer's Utility In Internet Auctions
Robert J. Kauffman and Charles A. Wood
Forthcoming in Information Technology and Management, 2005

03-43  Advising and Supervising Doctoral Students
Gordon B. Davis
Published in:  Presented in Information Systems PhD Supervisors' Workshop, June 14, 2003, Athens, Greece.

03-43  Advising and Supervising Doctoral Students
Gordon B. Davis
Published in:  Presented in Information Systems PhD Supervisors' Workshop, June 14, 2003, Athens, Greece.
03-42 Information Systems Development Project Flexibility: A Paradoxical Relationship between Environmental Changes and Project Team Responses
Gwanhoo Lee and Weidong Xia

03-41 Complexity of Information Systems Development Projects: Conceptualization and Measurement Development
Weidong Xia and Gwanhoo Lee

03-40 Grasping the Complexity of Information Systems Development Projects: A Taxonomy and Assessment
Weidong Xia and Gwanhoo Lee
Published in: Forthcoming in Communications of the ACM.

03-39 Contributing to Document Repositories - An Examination of Prosocial Behavior
Mani Subramani and Naren Peddibhotla

03-38 Effects of Web Retail Service Quality and Product Categories on Consumer Behavior: A Research Model and Empirical Exploration
Byounggu Choi, Choongseok Lee, Heeseok Lee, and Mani Subramani

03-37 Transparency Strategy in Internet-Based Selling
Nelson Granados, Alok Gupta and Robert J. Kauffman

03-36 Technology Competition and Optimal Investment Timing: A Real Options Perspective
Robert J. Kauffman and Xiaotong Li

03-35 A Survival Theory of Internet Firm Duration
Robert J. Kauffman and Bin Wang

03-34 Partnering for Perfection: An Economics Perspective on B2B Electronic Market Strategic Alliances
Qizhi Dai and Robert J. Kauffman

03-33 Managing What You Never Could Measure: A Data Mining-Based Approach to Measuring the Business Value of Web Site Design
Jungpil Hahn and Robert J. Kauffman

03-32 Revolutionary Research Strategies for E-Business Management: A Philosophy of Science Perspective for Research Design and Data Collection in the Age of the Internet
Robert J. Kauffman and Charles A. Wood
03-31 Towards Comprehensive Bidder Support in Online Combinatorial Auctions
Gediminas Adomavicius and Alok Gupta

Ravi Bapna, Paulo Goes, Alok Gupta, and Yiwei Jin
Published in: Forthcoming in Management Information Systems Quarterly.

03-29 Recommendation Technologies: Survey of Current Methods and Possible Extensions
Gediminas Adomavicius and Alexander Tuzhilin

03-28 Innovator or Owner? Information Sharing, Incomplete Contracts and Governance in Financial Risk Management Systems
Kunsoo Han, Robert J. Kauffman and Barrie R. Nault

03-27 Should We Expect Less Price Rigidity in the Digital Economy?
Robert J. Kauffman and Dongwon Lee

03-26 Orbitz, Online Travel Agents and Market Structure Changes in the Presence of Technology-Driven Market Transparency
Nelson Granados, Alok Gupta and Robert J. Kauffman

03-25 Does One Standard Promote Faster Growth? An Econometric Analysis of the International Diffusion of Wireless Technology
Robert J. Kauffman and Angsana A. Techatassanasontorn

03-24 To Be or Not to B2B: Evaluating Managerial Choices for E-Procurement Channel Adoption
Qizhi Dai and Robert J. Kauffman
Published in: Forthcoming in Information Technology and Management.

03-23 Examining the Intellectual Structure of Knowledge Management, 1990-2002 - An Author Co-citation Analysis
Mani R. Subramani, Sridhar P. Nerur and Radhakanta Mahapatra
Faculty & Staff Listings

INFORMATION & DECISION SCIENCES DEPARTMENT

Faculty

- Carl R. Adams, Professor
- Gedas Adomavicius, Assistant Professor
- Norman L. Chervany, Professor
- Shawn P. Curley, Professor
- Gordon B. Davis, Professor
- Gordon C. Everest, Associate Professor
- Alok Gupta, Associate Professor
- Paul E. Johnson, Professor
- Robert J. Kauffman, Professor, IDSc Dept. Chair
- Justus David Naumann, Associate Professor
- Fred Riggins, Assistant Professor
- Mani Subramani, Assistant Professor
- Lester A. Wanninger, Senior Lecturer, III Director
- Weidong Xia, Assistant Professor

Ph.D. Students

- Priscilla Arling
- Yoris Au
- Nicholas Ball
- Qizhi Dai
- Nelson Granados
- Jungpil Hahn
- Kunsoo Han
- Arpan Jani
- Andrew Jansma
- Dongwon Lee
- Gwanhoo Lee
- Jeongil Park
- Naren Peddibhotla
- Greg Ramsey
- Kelly Slaughter
- Angsana Techatassanasootorn
- Bin Wang
- Shariffah Zamoon
- Dmitry Zhdanov

MIS RESEARCH CENTER & MIS QUARTERLY STAFF

MIS Research Center

- Les Wanninger and Rob Kauffman, Co-Directors
- Donna Sarppo, Assistant Director
- Michael Orman, Communications Specialist
- Benjamin Prozinski, Communications Specialist
- Tirso Verano, Communications Specialist
- Chris Schumacher, Communications Specialist

MIS Quarterly

- Gordon Davis, Executive Editor
- Jan DeGross, Production Editor
- Jennifer Syverson, Review Coordinator
- Brittany Feser, Office Assistant
- Justine Ngo, Office Assistant
Carl R. Adams  
PROFESSOR

EDUCATION  
B.S., Michigan Tech University, 1962  
M.S., Purdue University, 1963  
Ph.D., Purdue University, 1966

PRIMARY INTEREST AREAS  
IS/IT Organization Design and Governance; Functional Strategy (IS/IT in particular)

CURRENT RESEARCH  
Use of capabilities as an organizing logic for IS/IT activities; Role of modularity in capabilities based organizations. The relationship of IS/IT strategy to IS/IT structure.

MAJOR PUBLICATIONS  

Gedas Adomavicius  
ASSISTANT PROFESSOR

EDUCATION  
Ph.D., Computer Science, New York University  
M.S., Computer Science, New York University  
Diploma (B.S./M.S.), Mathematics, Vilnius University, Lithuania

PRIMARY INTEREST AREAS  
Personalization technologies and customer relationship management; Data mining and knowledge discovery; Electronic markets

CURRENT RESEARCH  
multidimensional recommended systems; Computational aspects of combinatorial auctions; Techniques for customer modeling; Expert-driven validation of data mining results

MAJOR PUBLICATIONS  

Expert-Driven Validation of Rule-Based User Models in Personalization Applications (with A. Tuzhilin). Data Mining and Knowledge Discovery (special issue: Applications of Data Mining to Electronic Commerce), Volume 5, Nos. 1/2, January/April 2001.

Norman L. Chervany
PROFESSOR

EDUCATION
B.S., Mount Union College, 1963
M.B.A., Indiana University, 1965
D.B.A., Indiana University, 1968

PRIMARY INTEREST AREAS
Effects of management technology on work and organization design; Management of technological change; Design of the information management function

CURRENT RESEARCH
Factors affecting adoption and use of end-user information technology; Design and management of the new information technology introduction process; Building and using trust in organizational relationships

MAJOR PUBLICATIONS


Shawn P. Curley
PROFESSOR

EDUCATION
A.B., Dartmouth College, 1979
M.A., University of Michigan, 1981
Ph.D., University of Michigan, 1986

PRIMARY INTEREST AREAS
Decision and judgment processes; Belief processing; Judgment assessment and quality; Medical decision-making.

CURRENT RESEARCH
Knowledge management; Knowledge-based approach to managerial judgment and problem solving; Measurement of ambiguity and uncertainty; Evaluating forecast quality

MAJOR PUBLICATIONS


Gordon B. Davis

PROFESSOR

Honeywell Professor of Management Information Systems

EDUCATION

B.A./B.S., Idaho State University, 1955
M.B.A., Stanford University, 1957
Ph.D., Stanford University, 1959

HONORS

ACM Fellow, 1996
Honorary doctorate, Univ. of Zurich, 1995
DPMA Outstanding Educator Award, 1993
Honorary doctorate, Univ. of Lyon, France, 1990
U.S.A. Representative, Technical Committee 8 (Information Systems), International Fed. for Info. Processing
IFIP Silver Core Award, 1989

PRIMARY INTEREST AREAS

MIS planning; Information requirements determination; Management of knowledge work; Conceptual foundations for information systems

CURRENT RESEARCH

Productivity from information technologies; Management of knowledge work; Information systems curriculum

MAJOR PUBLICATIONS


Gordon C. Everest

ASSOCIATE PROFESSOR

EDUCATION

B. Com., University of Alberta, 1962
S.M., MIT, 1965
Ph.D., University of Pennsylvania, 1974

PRIMARY INTEREST AREAS

Database management systems (DBMS); Logical data modeling, object-role modeling (ORM); Data-centered systems development and CASE; DATA warehousing, multidimensional databases; Object-oriented DBMS; Legal aspects of computing

CURRENT RESEARCH

Comparing DATA modeling notational schemes; Privacy and security on the Internet; DATA vs. object-oriented modeling; Object-role modeling (ORM)

MAJOR PUBLICATIONS


**Alok Gupta**  
**ASSOCIATE PROFESSOR**

**EDUCATION**  
B.S., Banaras Hindu University  
M.S., Pennsylvania State University  
Ph.D., University of Texas - Austin

**PRIMARY INTEREST AREAS**  
Electronic Commerce; Data Communications; Information Modeling; Decision Support Systems; Real-time mechanism; Real-time databases

**CURRENT RESEARCH**  
Electronic Markets; Online Auctions; Electronic Business Processes; Digital Intellectual Property Rights

**MAJOR PUBLICATIONS**  


**Paul E. Johnson**  
**PROFESSOR**

**EDUCATION**  
B.S., University of Minnesota, 1960  
Ph.D., Johns Hopkins University, 1964

**PRIMARY INTEREST AREAS**  
Decision-making; Intelligent systems; Knowledge work

**CURRENT RESEARCH**  
Deception and fraud; Best practices in healthcare; Medical error and the logic of failure

**MAJOR PUBLICATIONS**  


Robert J. Kauffman
IDSC DEPT CHAIR, PROFESSOR,  
MIS RESEARCH CENTER CO-DIRECTOR

EDUCATION
B.A., University of Colorado, 1977
M.A., Cornell University, 1979
M.S., Ph.D., Carnegie Mellon Univ., 1985 1988

PRIMARY INTEREST AREAS
Senior management issues in IS; B2C and B2B e-commerce; economics of IS; evaluation of IT infrastructure investments; adoption and diffusion of technology innovations; IT applications in multiple industry contexts; software engineering management, IT professionals and careers.

CURRENT RESEARCH
Theoretical and empirical research in e-commerce; intermediation, disintermediation and reintermediation; corporate strategy in the digital economy; the new electronic markets of the Internet; adoption and diffusion of IT in financial services and e-procurement; economics of technology standards and networks; development and application of methods for assessing IT value and performance in a variety of industrial settings, including: electronic commerce, airlines, travel and hospitality industry, and financial services

MAJOR PUBLICATIONS


“Maximizing the Value of Internet-Based Corporate Travel Systems,” Communications of the ACM, November 2001 (with A. Chircu and D. Keskey).


Justus David Naumann
ASSOCIATE PROFESSOR

EDUCATION
B.A., University of Minnesota, 1971
M.S., University of Minnesota, 1973
Ph.D., University of Minnesota, 1978

PRIMARY INTEREST AREAS
Information systems development; Information systems management; Application prototyping; Telecommunications

CURRENT RESEARCH
Impacts of telecommunications changes

MAJOR PUBLICATIONS


Jinsoo Park
ASSISTANT PROFESSOR

EDUCATION
B.A., Keimyung University, 1991
M.B.A./M.S., University of Pittsburgh, 1994
Ph.D., University of Arizona, 1999

PRIMARY INTEREST AREAS
Heterogeneous and distributed database management and integration; Semantic interoperability and knowledge sharing; Semantic data modeling; Spatial database systems

CURRENT RESEARCH
Semantic-based knowledge and information retrieval; Design of semantic conflict resolution environment for heterogeneous; Internet information systems; Design of query processing for resolving semantically conflicting heterogeneous databases; Agent-based electronic business transactions

MAJOR PUBLICATIONS


Mani Subramani
ASSISTANT PROFESSOR

EDUCATION
B.E. (Hons.), Birla Institute of Technology and Science, Pilani, India, 1981
P.G.D.M., Indian Institute of Management Bangalore, India, 1983
D.B.A., Boston University, 1997

PRIMARY INTEREST AREAS
Knowledge Management;, IT Management, IT Strategy

CURRENT RESEARCH
Relating firm outcomes to IT initiatives; Knowledge Management; Managing Information Technologies

MAJOR PUBLICATIONS


Subramani, M.R. and Rajagopalan, B. "Examining Viral Marketing - A Framework for Knowledge Sharing And Patterns Of Influence" forthcoming in Communications of the ACM.


Frederick J. Riggins
ASSISTANT PROFESSOR

EDUCATION
B.S., Univ. of Iowa, 1980
M.B.A., Univ. of Iowa, 1984
M.S., Carnegie-Mellon Univ., 1990
Ph.D., Carnegie-Mellon Univ., 1994

PRIMARY INTEREST AREAS
Business models for Internet-based commerce; Management strategies for implementing interorganizational systems; Adoption and diffusion of information technology

CURRENT RESEARCH
Analytical models for pricing in the online channel; Measuring the diffusion, usage, and value of interorganizational systems; Customer perceptions of the value of online shopping and financial services

MAJOR PUBLICATIONS


Weidong Xia
ASSISTANT PROFESSOR

EDUCATION
B.S., Beijing University of Aeronautics and Astronautics, 1984
M.S., Beijing University of Aeronautics and Astronautics, 1986
Ph.D., University of Pittsburgh, 1998

PRIMARY INTEREST AREAS
Information technology and organizational competitiveness; Capabilities and organizational impact of IT infrastructure

CURRENT RESEARCH
Measurement of information technology infrastructure capabilities; Relationship between information technology capabilities and organizational capabilities; Business value of information technology infrastructure

MAJOR PUBLICATIONS

**Lester A. Wanninger**

**MISRC CO-DIRECTOR, LECTURER, III DIRECTOR**

**EDUCATION**

B.S., University of Minnesota, 1959  
M.S., Northwestern University, 1960  
Ph.D., Northwestern University, 1965

**PRIMARY INTEREST AREAS**

Mobile and Wireless; Electronic commerce; Perspective of consumer behavior driving the requirements for e-business processes; Information systems as communication channels to develop customer relationships.

**CURRENT RESEARCH**

Global Initiative on Mobile and Wireless, Text and multimedia messaging, Electronic commerce in advertising, relationship marketing, fulfillment, and information technology (NSF Electronic Commerce Project NSF Grant No. SBR-9811060).

**MAJOR PUBLICATIONS**


**PRESENTATIONS**


"Where Health Care IT is Going in 5 Years," Mayo Health Systems Senior Leadership Forum, Minneapolis, 2001


Presentations and Additional Publications
by Information & Decision Sciences
Faculty and Ph.D. Students


Research Projects by IDSc Faculty & Ph.D. Students

Detecting Strategically Manipulated Financial Information
(Johnson, Paul E.)

Economic agents base investment and other business decisions on financial information supplied by managers. In a series of studies we have been investigating how professionals in financial markets respond to information that has been strategically manipulated so as to influence the behavior of information users. Two types of individuals have been studied: 1) auditors, who are charged by society with evaluating the fairness of financial information supplied by management, and 2) loan officers, who use this information to decide on the allocation of financial credit. Despite high stakes and considerable training, these professionals often fail to detect manipulations in the information they process. Using cases representing real companies in which financial frauds were perpetrated and then missed by major accounting firms (but later caught by the SEC), we have developed a computational model of skill in fraud detection. We have shown how the model can be used to explain both success and failure of professional auditors and loan officers. Accounting firms as well as the SEC have supported this work.

Most recently, we have developed a computer-based task in which subjects are asked to create financial statement frauds. Here subjects are given “clean” versions of the fraud cases we have been studying in our deception detection task. We have been pilot testing the fraud creation task (using graduate students, auditors from accounting firms and individuals who have been credentialed by the American Board of Certified Fraud Examiners). Among our initial results is the provocative finding that subjects tend to put manipulations back where they were placed in the original cases (suggesting that the financial statements for a given company may have an inherent structure that affords certain kinds of fraudulent manipulations). We have also discovered that manipulations are much easier to make than they are to detect (a number of graduate students do as well as auditors on the fraud creation task).

Best Practice in the Treatment of Chronic Disease
(Johnson, Paul E.)

Decisions are made at a number of levels in the health care system. Patients make decisions regarding when to seek treatment and the extent to which they adhere to recommended drug regimes and practice preventive health measures. Physicians make testing, treatment, and referral decisions based on the patient’s condition and prognostic characteristics. Physician decisions are affected by organizational policies regarding staff, technology and clinical processes of care. Defining best practices for managing conditions in areas such as chronic disease entails determining both the individual (patient and provider) as well as organizational decisions that optimize outcomes of quality and cost.

In collaboration with colleagues in the Carlson School and local managed care organizations, we have engaged in studies of best practices in the management of specific chronic diseases (our current focus is Type 2 Diabetes). The project links empirical methods that identify practices of care delivery with qualitative and quantitative methods from the decision-making and cognitive sciences literature to investigate (drivers) of best practice care. We have focused our attention initially on patient adaptation to the conditions of chronic disease and the relationship between patient compliance behaviors and outcome measures of patient health status and patient satisfaction. An unusual aspect of our work is the development of a computer simulation of patients with Type 2 Diabetes that allows us to collect data on physician decision policies and treatment strategies. We are currently in the midst of a randomized clinical trial that employs the simulation to investigate the role of various kinds of feedback on physician decisions. This work is being carried out in collaboration with practicing physicians at local managed care organizations. This work is currently being funded by the Agency for Health Care Research and Quality (U.S. Department of Heath and Human Services).

A Metrics Suite for Maximizing the Business Value of Web-Based Applications in E-Commerce
(Hahn, J., and Kauffman, R. J.)

There is scant guidance available to the developers of Web-based applications in e-commerce that can aid in design in the systems so that they maximize the business value in use by customers. This research develops a formal theoretical basis for measuring the efficacy of design changes and site innovations that maximize revenue in Internet-based selling. The corporate sponsor for the research is Twin Cities-based e-grocer, SimonDelivers.com. The aim is to complete empirical studies that support the development of a “metrics suite”? a set of readily applied managerial measures ? for the value of design changes. The research is made possible through our direct access to the full Web logs and operations of the firm. Initiated in April 2001; expect to continue through mid-2003. With Jungpil Hahn, PHD Program in Information and Decision Sciences, PHD expected in 2003. (Corporate sponsor: Simon Foster, SimonDelivers.com, Golden Valley, MN)
Ph.D. Students in MIS

Priscilla Arling  
**EDUCATION**  
B.B.S., Virginia Commonwealth University, December 1980  
M.B.A., University of Missouri-Kansas City, December 2000  

**RESEARCH INTERESTS**  
IT-business user relationships; IT governance structures; IT capabilities and skills; Telework; Knowledge management  

**PUBLICATIONS & CONFERENCE PRESENTATIONS**  

Yoris A. Au  
**EDUCATION**  
B.S., Parahyangan Catholic University, Bandung, Indonesia  
M.B.A., Katz Graduate School of Business, University of Pittsburgh, PA.  

**RESEARCH INTERESTS**  
Information Technology Adoption; E-Commerce in Financial Services Industry; IS Economics  

**PUBLICATIONS & CONFERENCE PRESENTATIONS**  


Qizhi Dai  
**Education**  
M.S., Huazhong University of Science and Technology, P.R.C., 1995  
Doctoral program, University of Minnesota, 1998-present  

**RESEARCH INTERESTS**  
Adoption of information technologies, particularly e-procurement systems; Diffusion of Internet technologies; Impact of e-business on industry structures; E-business strategies.  

**PUBLICATIONS & CONFERENCE PRESENTATIONS**  


Jungpil Hahn  
**EDUCATION**  
B.B.A., Yonsei University, Korea, February 1996  
M.B.A., Yonsei University, Korea, February 1998  

**RESEARCH INTERESTS**  
Human-Computer Interaction; Design of Electronic Marketplaces; Knowledge Management; Computer-Mediated Communication and Virtual Communities of Practice Systems Analysis and Design; Business Process Modeling, Graphical Representation of Information Systems Requirements  

**PUBLICATIONS & CONFERENCE PRESENTATIONS**  


Kunsoo Han  
**EDUCATION**  
B.S., Korea Advanced Institute of Science and Technology (KAIST), 1993  
M.S., Korea Advanced Institute of Science and Technology (KAIST), 1996  
2000-2001, Ph.D. Program in Accounting and MIS, The Ohio State University  
2001- Present, Ph.D. Program in Information and Decision Sciences, University of Minnesota  

**RESEARCH INTERESTS**  
Economics of Information Systems; B2B Electronic Commerce  

**PUBLICATIONS & CONFERENCE PRESENTATIONS**  
Ph.D. Students in MIS (cont’d)

Han, K. "Incomplete Contracts and Interorganizational Systems," the 6th Annual U of M Electronic Commerce Conference, Minneapolis, MN, April 11-12, 2002.

Han, K. "Investments and Value Sharing in Interorganizational Systems: An Economic Perspective," the 2nd Big 10 IS Doctoral and Junior Faculty Research Symposium, Columbus, OH, May 2-3, 2003.

Naren Peddibhotla
EDUCATION
B. Tech, Indian Institute of Technology, Mumbai, India, 1988
PGDM, Indian Institute of Management, Kolkata, India, 1990

RESEARCH INTERESTS
Knowledge Management; Strategic use of information technology in organizations

CONFERENCE PRESENTATIONS


PUBLICATIONS

WORKING PAPERS
Contributing to document repositories - an examination of prosocial behavior, with Mani R. Subramani.

Determinants of helping behaviors in online groups: A conceptual model, with Mani R. Subramani.

How do I know that you know? Cues Used to Infer another's expertise and to signal one's own expertise, with Mani R. Subramani and Shawn P. Curley.

Dongwon Lee
EDUCATION
B.B.A., Seoul National University, Korea, February 1996
M.B.A., Seoul National University, Korea, February 1998
M.S., University of Arizona, Tucson, AZ, December 2000

RESEARCH INTERESTS
Price Rigidity in the Digital Economy; Agent-Mediated Business Intelligence; E-Commerce Adoption

PUBLICATIONS & CONFERENCE PRESENTATIONS


Gwanhoo Lee
EDUCATION
M.S., Seoul National University, 1993
B.S., Seoul National University, 1991

RESEARCH INTERESTS
IS project flexibility; IT capability; Adoption of IT

PUBLICATIONS & CONFERENCE PRESENTATIONS

Angsana A. Techatassanasoontorn
EDUCATION
B.S., Chulalongkorn University, Thailand, May 1989
M.S., University of Arizona, Tucson, AZ, August 1993
**RESEARCH INTERESTS**
Adoption and Diffusion of Information Technology
Diffusion Modeling
International Technology Diffusion
Technology Policy

**PUBLICATIONS & CONFERENCE PRESENTATIONS**


Kauffman, R.J., and Techatassanasoontorn, A. A. "International Diffusion of Mobile Commerce: A Coupled-Hazard Approach," accepted at the 7th Annual Conference on Information Systems and Technology (INFORMS-CIST), San Jose, CA, November 16-17, 2002

**Eric A. Walden**
**EDUCATION**
B.A., New Mexico State University
M.S., Louisiana State University
Ph.D., University of Minnesota (expected 2002)

**RESEARCH INTERESTS**
Interorganizational relationships; Valuation of electronic commerce initiatives and electronic commerce joint ventures; Economic aspects of electronic commerce

**PUBLICATIONS & CONFERENCE PRESENTATIONS**


**Shariffah Zamoon**
**Education**
B.S., Iowa State University, Ames, Iowa, 1993
M.B.A., Iowa State University, Ames, Iowa, 1999

**RESEARCH INTERESTS**
The impacts of culture on business & technology; ethical / moral judging

**Bin Wang**
**EDUCATION**
B.A., Renmin University of China
M.S., Purdue University

**RESEARCH INTERESTS**
Electronic Commerce; Efficacy of Different Business Models on the Internet; Performance and Survival of Technology-Focused Firms

**PUBLICATIONS & CONFERENCE PRESENTATIONS**


**When Internet Companies Morph: Understanding Organizational Strategy Changes**