

PROFILE

Was a lecturer in the Information Systems and Operations Management department, College of Business Administration, University of Texas at Arlington and in the Information Systems department, Jindal School of Management, University of Texas at Dallas during fall 2018. Was a Visiting Assistant Professor at the University of Texas at Arlington from August 2016 to May 2018 and taught Computer Networking and Information Systems Analysis and Design. Have also taught two semesters at the University of Texas at Dallas.

Before completing Ph.D. in 2016, worked for 20 years in the software development area with different clients including Bank of America, Deloitte Consulting, Schneider National, and Caterpillar Inc., performing the roles of senior systems analyst and programmer. Designed and developed modules for Business Intelligence, Financial Accounting, Order Processing, Life Insurance, Credit Card Processing and other applications using COBOL, DB2, CICS, VSAM, and JCL in IBM mainframe environment.

EDUCATION

- **Doctor of Philosophy (Ph.D.) in Business Administration, 2016.**
University of Texas at Arlington, Arlington, USA.

- Dissertation Topic: Mobile way or the highway! The role of deployment and design in problem solving using information dashboards
- Dissertation Chair: Dr. Radha Mahapatra

Information dashboards are becoming very popular in the areas of decision making and problem solving. Decision makers use heuristics when facing challenging environmental situations. These could result in systematic errors called biases. How do mobile information dashboards impact these biases? We propose that decision makers are more prone to biases associated with certain heuristics when using information dashboards deployed on mobile devices. Data visualizations displayed on dashboards could be distorted. We also propose that employment of heuristics could increase the negative effect of distortions.

There is a distinct bias in favor of deploying these dashboards on mobile devices versus static desktops. Is this justified by key performance and perceptual outcomes? Borrowing from the reference disciplines of cognitive psychology, instructional and educational psychology, vision search and advertising we arrive at a conceptual model that relates deployment, design and problem task type to performance and perceptual outcomes. The results of our controlled laboratory experiment indicate that use of dashboards with active control deployed on mobile devices will result in lesser task accuracy than the dashboards deployed on static desktops. Also users of highly interactive dashboards deployed on mobile devices experience lesser satisfaction than users of the same dashboards on static desktops. Further research areas including the role of cognitive fit between problem representation and problem type were identified. These could potentially uncover situations when the mobile information dashboards outperform static desktop dashboards.

- **Master of Business Administration (MBA) with specialization in Systems Management, 1989.**
Indian Institute of Management (I.I.M), Lucknow, India.
- **Bachelor of Technology (B.Tech) with specialization in Chemical Engineering, 1985.**
Indian Institute of Technology (I.I.T), Delhi, India.

TEACHING and RESEARCH

CONFERENCE PROCEEDINGS

- Raman, Ganapathiraman (2014) Adopting Agile Project Management Practices – An exploratory case study. *Decision Sciences Institute. 2014 Proceedings, Tampa Bay, Florida*. This was based on in-depth interviews and observation studies of more than 30 stakeholders in various positions in three organizations including a leading long term care company, a company in the hospitality sector and a leading provider of hardware and software.

REFERRED PROCEEDINGS

- Teng, J., Raman, G., Lee, Y.S. and Chauhan, K. (2012) Quo Vadis, ERP – Explicating and Modeling Dimensions of ERP success. *South West Decision Sciences Institute 2014 Proceedings, Dallas, Texas*.

AWARDS AT CONFERENCE

- Wrote a paper “Hierarchic View of Data Quality Attributes: Preferences between Relevancy and Format as Dimensions of Data Quality” along with Dr. James T.C. Teng and Philip Bond, which was presented at the third annual general business conference held at the Sam Houston University on April 15-16, 2011. Was judged the best paper in its area.

RESEARCH INTERESTS

- Data Visualization
- Agile Methodology
- Enterprise Resource Planning (ERP) systems

TEACHING INTERESTS

- Data Visualization and Business Analytics
- Business Intelligence
- Computer Networks and Distributed Computing
- Information Systems Analysis and Design
- Enterprise Resource Planning (ERP) systems and SAP.
- Object Oriented Programming Languages
- Database Management Systems
- Business Statistics
- Management of Information Systems

AWARDS and RECOGNITION

- Carrizo Dissertation Scholarship, 2016
- Dean’s Fellowship, University of Texas at Arlington, 2009 - 2012
- Award for Innovation at Caterpillar Inc. 2000.
- Outstanding Commitment Award at Caterpillar, 1998.
- Merit Cum Means Scholarship based on Central Board of Secondary Education, Senior High School final exam results, 1981 in New Delhi, India.
- Obtained 15th rank among students who took senior high school final exams in 1981 in New Delhi, India.

ACADEMIC EXPERIENCE

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PAL – Professor At Large (January 2019 onwards) - Currently engaged in a few DREAM (Dearly Remembered Eagerly Awaited Moment) projects.

- Project in the educational space exploring various options to deliver courses on Databases and Machine Learning in a unique way.
- Learning Machine Learning from various sources including www.fast.AI to be able to teach students.
- Planning to revive the project (Statistics in a snap using SNAP) to teach statistics in an engaging manner.

TEACHING (SPRING 2011 – DECEMBER 2018)

- **Lecturer , University of Texas at Dallas**
 - Section of graduate students: MIS 6326 – Data Management – Fall 2018
 - Section of graduate students: MIS 6320 - Database Foundations – Fall 2018
- **Lecturer , University of Texas at Arlington**
 - Combined section of Undergraduate and Graduate students: Information Systems Analysis and Design (INSY3305/5341) – Summer 2018
 - Section of Undergraduate students: Information Systems Analysis and Design (INSY3305) – Fall 2018
 - Combined section of Undergraduate and Graduate students: Information Systems Analysis and Design (INSY3305/5341) – Fall 2018
- **Visiting Assistant Professor, University of Texas at Arlington**
 - One graduate section of Information Systems Analysis and Design (INSY5341) – Spring 2018
 - Combined section of Undergraduate and Graduate students : Information Systems Analysis and Design (INSY3305/5341) – Spring 2018
 - Two undergraduate sections of Computer Networks and Distributed Computing (INSY3303) – Spring 2018
 - Combined section of Undergraduate and Graduate students : Information Systems Analysis and Design (INSY3305/5341) – Fall 2017
 - Three undergraduate sections of Computer Networks and Distributed Computing (INSY3303) – Fall 2017 and Spring 2017
 - One undergraduate section of Introduction to MIS and Data Processing (INSY2303) – Spring 2017
 - Two undergraduate sections of Introduction to MIS and Data Processing (INSY2303) – Fall 2016
 - One undergraduate section of Information Systems Analysis and Design (INSY3305) – Fall 2016
 - Combined section of Undergraduate and Graduate students : Information Systems Analysis and Design (INSY3305/5341) – Fall 2016
- **Lecturer 1, University of Texas at Dallas**
 - Two undergraduate sections of Information Technology for Business (ITSS3300) – Spring 2016 and Fall 2015
- **Lecturer, University of Texas at Arlington**
 - One undergraduate section of Introduction to MIS and Data Processing (INSY2303) – Fall 2014
- **Graduate Teaching Assistant, University of Texas at Arlington**
 - One undergraduate section of Capstone course Information Resource Management (INSY4325) – Spring 2014
 - One undergraduate section of Introduction to MIS and Data Processing (INSY2303) – Spring 2014, Fall 2013, Fall 2012, Spring 2012, Fall 2011, Spring 2011
 - One undergraduate section of Business Statistics I – Fall 2013

GRADUATE COURSE CONTENTS DEVELOPED AND TAUGHT

- **MIS 6326 – Data Management and MIS 6320 – Database Foundations**

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- MIS 6326 - The main subjects of the course included the understanding of relational database theories, industry standard SQL, and database design. A conceptual/semantic data modeling with the entity-relationship diagramming technique was also covered.
- MIS 6320 - This course was designed to provide database knowledge for non-MIS business students to function effectively in their functional area. The course covered conceptual data modeling with the Entity Relationship Diagram, fundamentals of relational database models and database queries, and the basics of data warehousing. Structured Query Language was used extensively.
- Designed the content of the course after interacting with a few leading experts who used and managed databases in organizations.
- Encouraged the students to learn and help improve the instruction process effectively throughout the semester using a motivational game. The game emphasized the importance of a learning atmosphere comprising diligence and truthfulness and encouraged all stakeholders to show an attitude of mutual respect. The evaluation of the different elements of the course and the analysis of the student feedback survey revealed the students practiced adequate diligence and truthfulness.
- Designed the contents, administered and evaluated students on an intensive semester long project. The highlight of the project included choosing a topic, gathering the database requirements, creating the Entity Relationship and the logical model, writing the SQL queries to satisfy database requirements. Each student performed the role of a database designer of a database project comprising the above activities and user\reviewer of the database project deliverables of another group.
- Taught students how to understand several critical concepts in databases using reasoning about fundamental components that are involved in everyday life.
- Encouraged several students to help write a book on Database management. Working together to plan the next steps. We are working on a vision for the book and looking into the details sharing widely the unique process of delivering the instructional content.
- **INSY5341 – Information Systems Analysis and Design**
 - This course covered the analysis and design phase of the systems development life cycle. Topics included systems survey, functional specification, interface specification, data design, program design, system testing, and implementation.
 - The highlight of this course was a semester-long project where the students created the system request and gathered requirements in a rigorous manner. Each developer group chose a topic based upon their interests and conducted technical, economic, and organizational feasibility on their chosen project. Each group also played the role of a user group to another developer group. After gathering functional and non-functional requirements, the developer group completed the analysis models using UML 2.5, which was then verified and validated by a user group. We simulated an industry setting where the developers and users worked together to develop systems.
 - Also taught the course online. Conducted the class room lecture sessions from home, using Skype. The students attended the session in the class room. Coordinated the activities of two TA's to administer the lecture sessions, assignments, quizzes and project presentations.

UNDERGRADUATE COURSES TAUGHT

- **INSY4325 – Information Resource Management (Capstone Course)**

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- This course was designed to provide INSY majors a broad managerial view of deployment and management of IT resources. This course aimed to discuss the challenges of managing a business in a global networked economy.
- The objectives of the course were to:
 - Provide a process-oriented view of organizations.
 - Provide an understanding of how end-to-end business processes work in organizations.
 - Facilitate an understanding of the role of ERP (enterprise resource planning) systems.
 - Give students a hands-on experience with a real-world ERP system. The students work on several modules of SAP (SD,MM,FI and CO) and complete assignments.
 - Expose students to emerging trends in enterprise software development, deployment, and architectures, including SOA (service-oriented architecture), cloud-computing, and business intelligence.
- **INSY3305 – Information Systems Analysis and Design**
 - This course provided students with an opportunity to systematically study systems analysis and design. A variety of topics were covered to familiarize students with the concepts and techniques underlying analysis and design. Specifically, three primary areas were covered: Project Initiation; Project Management and Requirements Determination; Analysis Modeling and Design Modeling.
 - Conducted the lecture session during one semester asynchronously using lectures recorded in Skype and ECHO Personal Capture. Coordinated the activities of two GTA's who administered the lectures, quizzes, assignments and supervised the preliminary project presentations.
- **INSY3303 – Computer Networks and Distributed Computing**
 - This was an introductory course to familiarize students with the concepts, working principles, and management issues related to data communication and computer networks. At the end of the semester, students mastered the terminology and network principles concepts.
 - Teaching a highly technical course to management students was quite challenging. Made it effective by using many hands on Kahoot games, projects (using Rivershark and Riverbed Modeler software), examples, in-class exercises, quizzes, and exams to help the students learn better. The students learned several intricate concepts including error control and subnets.
- **ITSS3300 - Information Technology and Business**
 - This course was designed to help students understand key business processes in an organization and how technology can help manage and execute these processes.
 - Guided the students in completing simulation exercises on various SAP modules. Designed and conducted a game similar to Jeopardy to illustrate course concepts to students in an engaging manner.
- **BSTAT3321 – Business Statistics I**
 - The students were able to understand and apply basic concepts to descriptive and inferential statistics. Students learned how to:
 - Describe a dataset verbally, numerically, and graphically.
 - Explain why randomness occurs while collecting data and select a simple random sample.
 - Understand and apply the various laws of probability.
 - Distinguish between discrete and random variables, find binomial and normal probabilities using tables, and compute the expected value and variance for a binomial distribution.
 - Understand the Central Limit Theorem and choose the sampling distributions to find and interpret probabilities for the sample mean and sample proportion.
 - Understand and use the confidence intervals for a population mean and population proportion
 - Determine sample sizes for given levels of confidence and margins of error.
 - State and test hypotheses about a population mean and proportion and apply it to managerial scenarios.

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- Fit and interpret simple linear regression models
- Designed and conducted in-class activities to demonstrate several important concepts. The students completed 9 different assignments in order to practice the concepts learned. Prepared detailed help documentation on various topics. This was one of the most fulfilling courses in my teaching career.
- **INSY2303 – Introduction to MIS and Data Processing**
 - Course contents included, introduction to business data processing, computer programming, management information systems, and problems involved in business information processing systems. The students worked on several projects using Microsoft Word, Excel, PowerPoint and Access. Prepared detailed help documents on Microsoft Access project and conducted laboratory sessions to help students.

Graduate Teaching Assistant (GTA) (Fall 2009 – Spring 2014)

- Worked as a GTA in the Information Systems and Operations Management Department at the University of Texas at Arlington for several graduate and undergraduate courses.
- Assisted students by resolving their doubts and explaining clearly intricate statistics concepts in the statistics lab.
- Analyzed assignment and exam submissions of students in Java 1 and 2, prepared detailed rubric for each assignment and exam, proctored exams, graded the student submissions, communicated results to students, and provided clarification when needed.
 - Graduate Courses:
 - INSY-5337-Data Warehouse and Business Intelligence
 - Prepared course material, designed projects and delivered lectures on ETL (Extract Transformation and Load) facility of SQL Server 2008, Cube Building of SQL Server Business Intelligence unit.
 - Undergraduate Courses:
 - INSY4305 – Advanced Application Development using Java
 - INSY3304 - Database Management Systems
 - INSY3300 – Introduction to Java

INDUSTRY EXPERTISE

March 2003 – March 2008, Subject Matter Expert, National Systems Consulting L.P. and TEKsystems Inc.

- Was subject matter expert on credit card operations that involved lost or stolen credit cards in a leading consumer bank. Performed designer and developer roles in Business Intelligence division.
- Developed applications using COBOL, DB2, JCL, VSAM, and SQL SERVER.

August 1994 – March 2003, Senior Systems Analyst, iGate Mastech Ltd.

- Designed, developed, and enhanced Mainframe and PC-based applications for clients including:
 - Caterpillar Inc. – Was a member of team that automated the Product Structure and Repository.
 - Schneider National – Was responsible for developing interfaces of legacy systems to EDI (Electronic Data Interchange) systems.
 - Deloitte Consulting – Helped model the database of the unemployment benefits services website of Texas Workforce Commission, Austin.
- Was an expert in areas such as COBOL, DB2, CICS, VSAM, and JCL.

June 1989- August 1994, Senior Systems Analyst, TCS (Tata Consultancy Services), India

- Was a member and team leader of several software development teams in TCS (Tata Consultancy Services), India. These teams developed online and batch applications for clients including :

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- Steel Authority of India Limited (SAIL) India – Subject Matter Expert of the steel product pricing software written in MS-COBOL in a LAN environment.
- Sun Life Assurance, Bristol, U.K. – Led teams that helped change financial accounting insurance related modules using legacy databases to access relational DB2 tables. The teams conducted unit, system, and integration testing of those modules.
- GAP Inc., USA – Led a team that developed and tested modules for the purchase of clothes in the purchase management system .
- Corporate Insurance Company, Australia – Led a team that re-engineered insurance application programs in legacy systems to IBM 3090.
- HAECO - Developed and tested programs using TANDEM COBOL 85 in Tandem Nonstop Environment using Pathway, and SCOBOL at Hong Kong Aircraft Engineering Company (HAECO), Hong Kong.
- Designed and developed training material and administered training programs in IBM DB2 and COBOL.

SKILLS

PHD LEVEL STATISTICS COURSES TAKEN

- Multiple Regression
- ANOVA
- Experimental Design
- Non-Parametric Statistics
- Multivariate Statistics
- Structural Equation Modeling (S.E.M.)

SOFTWARE USED

- Statistical Software** : NCSS, SPSS, ARC, LISREL.
- Database** : SQL SERVER, ORACLE, DB2, Microsoft Access, IMS, IDMS.
- Data Mining** : WEKA
- Programming Languages** : Python, Java, C, C++, COBOL, VISUAL BASIC, FORTRAN, REXX, JCL.
- Microsoft** : Word, Excel, PowerPoint.
- Data Visualization** : Tableau

PROFESSIONAL ORGANIZATIONS

- Association for Information Systems (AIS)
- Institute for Operations Research and Management Sciences (INFORMS)
- Decision Sciences Institute (DSI)

CERTIFICATIONS

- Certified Toastmaster under the aegis of Toastmasters International, 2005.
- Certification in Java, Brainbench, 2001.