Preface

The field of information resources management is broad and encompasses many facets of information technology research and practice as well as business and organizational processes. Because information technology changes at an incredible rate, it is essential for all who use, teach or research information management to have access to the most current data and research and keep up with the emerging trends. This publication is the first volume (Vol. I-1) of the new Series on "Advanced Topics in Information Resources Management" that is aimed to provide a greater understanding of issues, challenges, trends, and technologies effecting the overall utilization and management of information technology in modern organizations around the world.

The chapters in this book address the emerging issues in information resources management and its application. Knowledge management, business process change, achieving and maintaining competitive advantage with information technology and systems are topics relevant to business people and academics. Additionally, the chapters provide concrete ways for academics to broaden their research and case study examples, which will enable business people to avoid the pitfalls discussed in the book

Chapter 1 entitled, "Knowledge management and New Organization Forms: A Framework for Business Model Innovation" by Yogesh Malhotra of @Brint.com (USA) proposes a conceptualization in the form of a framework for developing knowledge management systems for business model innovation. This framework will facilitate the development of new business models that are better suited to the new business environment, which is characterized by a dynamic, discontinuous and radical pace of change. The chapter further discusses how the application of this framework can facilitate development of new business models.

Chapter 2 entitled, "Using a Metadata Framework to Improve Data Resources Quality" by Tor Guimaraes, Tennessee Technological University, Youngohc Yoon of University of Maryland Baltimore County and Peter Aiken, Defense Information Systems Agency (USA) presents a metadata framework as a critical tool to ensure data quality. The model presented enables further development of life cycle phase-specific data quality engineering methods. The chapter expands the concept of applicable data quality dimensions and presents data quality as a function of four distinct components: data value quality, data representation quality, data model quality, and data architecture quality. The chapter then discusses each of these components.

Chapter 3 entitled, "Visualizing IT Enabled Business Process Change (BPC)"

by Martijn Hoogeweegen of Erasmus College (Netherlands) focuses on supporting BPC mangers in their search for information technology (IT) enabled alternative process designs. The authors provide a literature review to formulate a number of IT enabled NBPC guidelines. They then visualize these guidelines in process charts. Finally, the chapter discusses a case study to illustrate the applicability of these guidelines.

Chapter 4 entitled, "Relating IS Infrastructure to Core Competencies and Competitive Advantage" by Terry A. Byrd of Auburn University (USA) presents and describes a model that illustrates the possible connection between competitive advantage and IT. Furthermore, the chapter shows how one major component of the overall IT resources, the information systems infrastructure might yield sustained competitive advantage for an organization. By showing that information systems infrastructure flexibility acts as an enabler of the core competencies, the author demonstrates the relationship to sustained competitive advantage.

Chapter 5 entitled, "Theoretical Justification for IT Infrastructure Investments" by Timothy Kayworth of Baylor University, Debabroto Chatterjee of Washington State University and V. Sambamurthy of University of Maryland (USA) proposes a theoretical framework to justify the value creating potential of IT infrastructure investments. The chapter presents a conceptual framework that describes the nature of IT infrastructure and its related components. Next, the authors discuss the role of IT infrastructure as a competitive weapon and identify three areas where IT may create strategic value and discuss specific theories and research propositions to guide further infrastructure research.

Chapter 6 entitled, "Technology Acceptance and Performance: In Investigation into Requisite Knowledge" by Thomas Marshall, Terry Byrd, Lorraine Gardner and R. Kelly Rainer of Auburn University (USA) investigates how knowledge bases contribute to subjects' attitudes and performance in the use of Computer Aided Software Engineering (CASE) tool database design. The study discussed in the chapter identified requisite knowledge bases and knowledge base interactions that significantly impacted subjects' attitudes and performance. Based on the findings, the authors present alternatives that may help organizations increase the benefits of technology use and promote positive attitudes towards technology innovation acceptance and adoption.

Chapter 7 entitled, "Motivations and Perceptions Related to the Acceptance of Convergent Media Delivered Through the World Wide Web" by Thomas Stafford and Marla Royne Stafford of University of Memphis and Neal G. Shaw of University of Texas-Arlington (USA) examines the well-understood technology adoption precepts of the Technology Acceptance Model in conjunction with the media-use motivations theories arising from the adaptations of the Uses and Gratifications perspective, with special emphasis on the emerging effects of social gratifications for Internet use.

Chapter 8 entitled, "Key Issues in IS Management in Norway: An Empirical Study

Based on Q Methodology" by Petter Gottschalk of the Norwegian School of Management (Norway) provides an overview of research approaches to key issues studies combined with key issue results from previous research. The paper introduces a three-step procedure for key issues selection and the author adopts a Q-sort analysis. The chapter presents results from the Q-sort survey and analysis. The most important issue as reported by the study is improving the links between information systems strategy and business strategy.

Chapter 9 entitled, "Managing Strategic IT Investment Decisions From IT Investment Intensity To Effectiveness" by Tzu-Chuan Chou and Robert G. Dyson of the University of Warwick and Phillip L. Powell of University of Bath (UK) proposes an analytical model employing a number of constructs, namely: effectiveness of decisions, interaction and involvement in decision formulation process, accuracy of information and strategic considerations in the evaluation process, accuracy of information and strategic considerations in the evaluation process, rarity of decisions, and the degree of IT intensity of an investment in strategic investment decisions. The results show that interaction, accuracy of information and strategic considerations are the mediators in linking of IT investment intensity and effectiveness.

Chapter 10 entitled, "Extending the Technology Acceptance Model Beyond its Country of Origin: A Cultural Test in Western Europe" by Said Al-Gahtani of King Khalid University (Saudi Arabia) reports on a study that attempted to theoretically and empirically test the applicability of the technology acceptance model (TAM) in the culture of Western Europe. The chapter begins by discussing the background of spreadsheets and the role they played in the diffusion computer technology and into organizations and then presents the results of the study.

Chapter 11 entitled, "The Collaborative Use of Information Technology: End-User Participation and Systems Success" by William J. Doll of the University of Toledo and Xiaodon Deng of Oakland University (USA) presents a congruence construct of participation that measures whether end users participate as much as they would like to in key systems analysis decisions. The results indicate that user participation is best achieved in collaborative applications. The findings of this chapter will help managers and analysts make better decisions about how to focus efforts to increase participation and whether end-users should participate as much as they want to.

Chapter 12 entitled, "User Satisfaction with EDI: An Empirical Investigation" by Mary Jones of Mississippi State University and Robert Betty of Texas Christian University (USA) identifies results of a study undertaken to identify antecedents of end-user satisfaction by surveying key end users of EDI from a variety of organizations across the United States. The results of the study indicate that the greater the perceived benefits of EDI, the grater the user satisfaction. A second results shows that the more compatible EDI is with existing organizational practices and systems, the more satisfied the users are with them.

Chapter 13 entitled, "Corporate Intranet Infusion" by Lauren Eder and Marvin Darter of Rider University (USA) examines organizational, contextual and technical variables that are associated with intranet infusion in the United States. The authors

analyzed six independent variables using an ordered probit analysis to explain the likelihood of the occurrence for different levels of intranet infusion. The results indicate that top management support, IT infrastructure and competition positively influence high levels of intranet infusion. Organizational size is negatively associated with levels of intranet infusion.

Chapter 14 entitled, "Dynamics of Information in Disseminating Academic Research in the New Media: A Case Study" by James Ho of University of Illinois at Chicago presents the history of a case in point with data recorded over a period of fifteen months. The results of the case study indicate that the Internet in general and the World Wide Web in specific will be a significant resource in bridging the gap between practice and relevant research. The author reports on a successful experience in an experiment to disseminate research results in the New Media. The article concludes that if professors are willing to broaden their customer base, there is an expanding network of practitioners to tap their expertise and provide feedback for their academic research.

Chapter 15 entitled, "Assessing the Value of Information Technology Investment to Firm Performance" by Qing Hu of Florida Atlantic University and Robert Plant of the University of Miami (USA) argues that the causal relationship between IT investment and firm performance an not be reliably established through concurrent IT and performance data. The authors speculate that inferring the causality of IT investments in the years preceding are significantly correlated with the performance of the firm in subsequent years may not be the most accurate. Rather, they discuss a model, which indicates that improved financial performance over consecutive years may contribute to the increase of IT investment in subsequent years.

Chapter 16 entitled, "Some Evidence on the Detection of Data Errors" by Barbara Klein of University of Michigan—Dearborn (USA) reports the results of a study showing that municipal bond analysts detect data errors the results provide insights into the conditions under which users in organizational settings detect data errors and discusses guidelines for improving error detection. The results of the study indicate the users of information systems can be successful in detecting errors.

Chapter 17 entitled, "An Analysis of Academic Research Productivity of Information Systems Faculty" by Qing Hu of Florida Atlantic University and T. Grandon Gill of University of South Florida (USA) discusses the results of a study inquiring about faculty research productivity. The results show that while there are only two significant factors contributing positively to research productivity: time allocated to research and the existence of a doctoral program, many other factors appear to adversely affect research productivity. The results also suggest that some of the commonly held motivations for research such as tenure or academic rate have no effect at all.

Chapter 18 entitled, "Integrating Knowledge Process and System Design for Naval Battle Groups" by Mark Nissen and Elias Oxedine IV of the Naval Postgraduate School (USA) integrates a framework for knowledge process and system design that covers the gamut of design considerations from the enterprise

process in the large, through alternative classes of knowledge in the middle and onto specific systems in detail. Using the methodology suggested in the chapter, the reader can see how to identify, select, compose and integrate the many component applications and technologies required for effective knowledge system and process design.

Chapter 19 entitled, "A Case Study of Project Champion Departure in Expert Systems Development" by Janice Sipior of Villanova University (USA) discusses an expert systems project by examining the experiences of Cib-Geigy corporation with an expert systems project which was impeded by the departure of the project champion. When the driving force behind the project was transferred, the expert systems project stalled. The chapter discusses the difficulties in maintaining momentum for a project without a leader and presents suggestions for organizations so that they can avoid the pitfalls encountered.

Chapter 20 entitled, "Organizational Commitment in the IS Workplace: An Empirical Investigation of Its Antecedents and Implications" by Qiang Tu of Rochester Institute of Technology and Bhanu Raghunathan and T.S. Raghunathan of the University of Toledo (USA) attempts to fill a gap by empirically examining the relationships among a set of organizational and psychological factors and the organizational commitment of IS managers. The authors employed rigorous statistical analysis using the method of LISREL path. The results indicate that these variables are closely related to each other providing valuable insights for organizations to more effectively manage there IS human resources.

Information management in all its forms has revolutionized business, teaching and learning throughout the world. The chapters in this book address the most current topics in information management such as knowledge management, organizational commitment, implementing expert systems and assessing the relevance and value of IT to a variety of organizations. Academics and researchers will find the research discussed an excellent starting point for discussions and springboard for their own research. Practitioners and business people will find concrete advice on how to assess IT's use to their organization, how to most effectively use their human and IT resources and how to avoid the problems encountered by the organizations discussed in the above chapters. This book is a must read for all those interested in or utilizing information management in all its forms.

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