Preface

In the time of constant technological and managerial advancement, firms of the 21ˢᵗ century are faced with an ongoing quest for implementing more effective strategies and methodologies to remain at the apex of the information resources management industry. Considering this, researchers and the pioneers of academia incessantly delve into potential solutions to increase efficacy within technological and information resources management, as well as identify the emerging technologies and trends. *Emerging Information Resources Management and Technologies,* part of the *Advances in Information Resources Management Series,* supplies the industry leaders, practicing managers, researchers, experts, and educators with the most current findings on undertaking the operation of the latest information technology reforms, developments, and changes. This publication presents the issues facing modern organizations and provides the most recent strategies in overcoming the obstacles of the ever-evolving information management and utilization industry.

Chapter I, "The Relevance of Learning Processes for IT Implementation," by *Tanya Bondarouk and Klaas Sikkel, University of Twente (The Netherlands),* discusses the belief that it is neither the quality of the technology, nor that of the individual users, but the interactions among people in groups of users concerning a new system that determines the success or failure of IT implementation. Aiming at conceptualization of the role of group learning in IT implementation, the authors first develop a theoretical framework based on the experiential learning cycle that includes five processes. Second, the authors illustrate the roles of learning processes in three case studies. Analysis of the interviews with 98 users of information technologies has revealed a unique function of group learning in the IT implementation. The chapter elaborates on three organizational conditions important for directing the constructive group learning: managerial support issues, structural and nonstructural group characteristics, and technological features that turn group learning in a positive direction.

Chapter II, "Salary Differences Between Male and Female Software Developers," by *Ronald Dattero, Missouri State University (USA), Stuart D. Galup, Florida Atlantic University (USA), and Jing "Jim" Quan, Salisbury University (USA)*, quantifies differences in the hourly salaries of female software developers with their male counterparts using the human capital model based on economic theory. In addition to the gender factor, the human capital model includes other control variables that may account for the salary differences such as education, experience, and specific skills, such as object-oriented programming and SQL. Our models indicate that gender is a statistically and practically significant factor in assessing a software developer's salary.

Chapter III, "Exploring the Effectiveness of Information Security Policies," by *Neil F. Doherty and Heather Fulford, Loughborough University (UK)*, discusses how ensuring the security of corporate information assets has become an extremely complex, challenging and high-priority activity, due partly to their growing organizational importance, but also because of their increasing vulnerability to attacks from viruses, hackers, criminals, and human error. Consequently, organizations have to prioritize the security of their computer systems, to ensure that their information assets retain their accuracy, confidentiality, and availability. While the importance of the information security policy (InSPy) in ensuring the security of information is widely acknowledged, there has, to date, been little empirical analysis of its impact or effectiveness in this role. To help fill this gap an exploratory study was initiated that sought to investigate the relationship between the uptake and application of information security policies and the accompanying levels of security breaches. To this end a questionnaire was designed, validated, and then targeted at IT managers within large organizations in the United Kingdom. The findings are presented in this chapter.

Chapter IV, "Competing in the Marketplace: Incorporating Online Education into Higher Education: An Organizational Perspective," by *Deirdre A. Folkers, The Pennsylvania State University – York Campus (USA)*, examines the external forces that are challenging higher education. It will further examine the managerial, organizational, and cultural issues that arise as colleges and universities seek to move from the physical "marketplace" to the virtual world of the "marketspace" through the integration of distance education programs.

Chapter V, "Determinant of Information Quality and Use of Executive Information Systems (EIS) in UK," by *Omar E.M. Khalil, Kuwait University (Kuwait)* and *Manal M. Elkordy, Alexandria University (Egypt),* reports on the findings of a research investigating the influence of information quality on EIS information use as well as the possible impact of ease of use, user involvement, IS maturity, and system sophistication on EIS information quality. To test the research hypotheses, data was collected from 216 U.K.-based executives. A structural equation modeling (SEM) technique for data analysis and model measurement was applied. Information quality was found to influence EIS information use. Also, ease of use, user involvement, the IS integration dimension of IS maturity, and EIS sophistication were found to

influence executives' perception of information quality. Further findings, limitations, and implications for researchers and practitioners are discussed.

Chapter VI, "Evidence of Compensatory Adaptation to Unnatural Media in a Field Study of Process Redesign Dyads," by *Ned Kock, Texas A&M International University (USA),* presents how much of the past research on electronic communication media suggests that those media pose obstacles to communication in collaborative tasks when compared with the face-to-face medium. On the other hand, past research also points at mixed findings in connection with the quality of the outcomes of collaborative tasks, generally suggesting that the use of electronic communication media has no negative effect on those outcomes. A new theoretical framework building on human evolution theory, called compensatory adaptation theory, has been proposed to explain these contradictory findings. This study provides a review and test of compensatory adaptation theory. The study suggests that even though the use of electronic communication media seemed to increase cognitive effort and communication ambiguity, it had a neutral impact on task outcome quality. These results appear to be an outcome of compensatory adaptation, whereby the members of the dyads interacting through the electronic communication medium modified their behavior in order to compensate for the obstacles posed by the medium, which is suggested by a decrease in fluency and an increase in message preparation.

Chapter VII, "Information Technology as a Target, Shield, and Weapon in the Post-9/11 Environment," by *Laura Lally, Hofstra University (USA)*, draws upon normal accident theory and the theory of high reliability organizations to examine the potential impacts of information technology being used as a target in terrorist and other malicious attacks. The chapter also argues that information technology can be used as a shield to prevent further attacks and mitigate their impact if they should occur. A target and shield model is developed, which extends normal accident theory to encompass secondary effects, change, and feedback loops to prevent future accidents. The target and shield model is applied to the Y2K problem and the emerging threats and initiatives in the post-9/11 environment. The model is then extended to encompass the use of IT as a weapon against terrorism.

Chapter VIII, "An Extended Trust Building Model: Comparing Experiential and Non-Experiential Factors," by *D. Harrison McKnight, Michigan State University (USA)* and *Norman L. Chervany, University of Minnesota (USA),* examines a model of factors influencing system troubleshooter trust in their supervisors, contrasting experiential and nonexperiential factors. System troubleshooters keep important organizational systems operating. Traditional research suggests that trust forms through interactional experience. Recent research indicates that initial interpersonal trust develops through nonexperiential factors that are dispositional (individual differences-related) or institutional (structural/situational). This chapter combines initial and experiential factors to see which remain effective over time. The study shows that both experiential and nonexperiential factors are important to troubleshooter trust even after parties know each other well.

Chapter IX, "A Question of Timing: Information Acquisition and Group Decision Making Performance," by *Souren Paul, Southern Illinois University Carbondale (USA), Carol Stoak Saunders, University of Central Florida (USA), and William David Haseman, University of Wisconsin – Milwaukee (USA)*, explores the impact of information acquisition on decision time and perceived decision quality for groups that used group support systems (GSS) to work on a fuzzy task. The authors found that more information was accessed from a Web-based system in the first part of the group decision-making process, when the decision environment was searched and possible courses of action were analyzed. The authors also found that the proportion of information accessed in the first part of the meeting was significantly related to the decision time. More specifically, when most information was accessed in the first part of the decision-making session, the relationship between decision time and amount of information accessed in early part of the meeting was positive and linear. However, a curvilinear relationship was found between decision time and amount of information accessed in the latter part of the decision-making session. Unlike the findings of a previous study, this earlier access of information is not associated with improved perceived decision quality.

Chapter X, "Progress in Internet Privacy Policies: A Review and Survey of U.S. Companies from 1998 through 2006," by *Alan R. Peslak, Penn State University – Worthington Scranton (USA)*, discusses how on the Internet has been of increasing concern with the explosive growth of electronic commerce. A series of past surveys by the Federal Trade Commission and other organizations measured the implementation of fair information practices and industry self-regulation of privacy. This report includes two important additional factors in the review—enforcement and simplicity. Using historical studies and this more comprehensive analysis, this article reviews the current Internet privacy polices of the 50 largest U.S. companies in 2003 and updates this review for 2006.

Chapter XI, "The Relationship of Strategic Intent to the Enablers and Inhibitors of E-Business Adoption in SMEs," by *Margi Levy, University of Warwick (UK), Philip Powell, University of Bath (UK), and Les Worrall, University of Wolverhampton (UK),* investigates e-business use and drivers using survey data from 354 small and medium-sized enterprises (SMEs) in the U.K. West Midlands. It first discusses different growth strategies adopted by SMEs and reviews Internet adoption in SMEs. Drivers and inhibitors of e-business are identified. Three research questions are derived—does strategic intent drive e-business adoption and is it a factor of market position or product innovation? Is this consistent across sectors? And how is strategic intent and industry adoption influenced by the enablers and inhibitors of e-business adoption? This research demonstrates that strategic intent influences decisions to invest in e-business. Those SMEs remaining in their existing markets are the least likely to invest, primarily due to the Internet not being seen as necessary for growth. Product innovation rather than market penetration drives e-business and e-business drivers and inhibitors provide insights into this.

Chapter XII, "Understanding Web Site Usability: The Influence of Web Site Design Parameters," by *Monideepa Tarafdar, University of Toledo (USA),* and *Jie (Jennifer) Zhang, University of Toledo (USA)*, analyzes Web site usability from the point of view of Web site design parameters. An analysis of usability and other design characteristics of 200 Web sites of different kinds revealed that design aspects such as information content, ease of navigation, download delay, and Web site availability positively influence usability. Web site security and customization were not found to influence usability. The chapter explains these results and suggests design strategies for increasing Web site usability.

Chapter XIII, "Breaking Out of Lock-in: Insights from Case Studies into Ways Up the Value Ladder for Indian Software SMEs," by *Abhishek Nirjar, Indian Institute of Management, Lucknow (India),* and *Andrew Tylecote, University of Sheffield Management School (UK),* states how small and medium enterprises in the Indian software development industry, like their larger counterparts, are mostly low on the value ladder. This chapter examines the difficulties confronting them in moving up the ladder, and the strategies and circumstances conducive to success, drawing on three case studies. Human resource development emerges as central. Though SMEs have meager resources for moving up, compared to large firms, they have a greater incentive to do so—and this organizational interest accords with the interests and motivations of their employees for career development. It is found that the keys to success are to treat employees as co-investors in their own human capital, to form an effective "community of practice" across the firm, and to find market opportunities which "stretch" the firm in the right direction and to the right extent. For the last of these the main contribution is made by existing clients, but an important role may be played by venture capitalists, particularly those which are U.S.-based.

Chapter XIV, "Comparing Expert Systems and Agent Technology for Knowledge Management," by *Tor Guimaraes, Tennessee Technological University (USA),* presents an overview and comparison of expert system and agent technologies, and shows the latter as a powerful extension in artificial intelligence for systems development. To illustrate, a system developed first using an expert system approach and then an agent-based approach are used to identify the strengths and weaknesses of the agent-based approach. Last, the practical implications of a company adoption of agent-based technology for systems development are addressed.

In the competing business environment of today, strategically managing information resources is at the forefront for organizations worldwide. The adaptation of technological advance has become the key agenda for firms who desire the greatest effectiveness and efficiency of information resources management. Technology, and all it facilitates, has become the axis of the modern world, and thus, having access to the most current findings allows firms the vehicle for the next echelon of success. By investigating transpiring technological movements, researchers, experts, and practitioners alike have the opportunity to implement the highest of emerging standards and grow from that execution. To address this, *Emerging Information*

Resources Management and Technologies, comprises the most current findings associated with utilizing these advancements and applying their latest solutions.

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