Preface

During the past decade, information technologies (IT) have had significant impacts on all aspect of organizational functions. IT adoption in organizations has provided many opportunities for corporate expansion and prosperity in the ever-global competition. Some organizations have been very effective in the utilization and management of IT applications, while others have not been very successful in many aspects of IT adaptation in their respective organizations. Many lessons can be learned from both types of experiences by IT students, researchers, as well as managers to avoid mistakes of others and to adopt the best practices of the successful cases in achieving greater utilization and management of IT.

To achieve a better understanding of pitfalls and success of IT in organizations, more than 40 IT scholars, researchers and managers have shared their experiences in this volume. This publication consists of 22 real-life cases on all aspects of IT utilization and management in organizations throughout the world. The cases included in this publication report many success and failure stories related to IT management in modern organizations. The following paragraph provide summaries of cases included in this publication.

ACEnet: Facilitating Economic Development Through Small Business Electronic Commerce by Craig Van Slyke, University of Central Florida (USA), France Belanger, Virginia Polytechnic Institute and State University (USA), and Marcy Kittner, University of Tampa (USA)

This case describes how a not-for-profit agency, the Appalachian Center for Economic Networks (ACEnet), facilitates the use of e-commerce by rural small businesses as a part of an overall strategy for spurring economic development through small businesses. ACEnet provides a number of resources that help small businesses take advantage of e-commerce, including computer labs, Web site hosting, consultative services, and technical and business training. This case illustrates how these services help rural small businesses overcome many of the barriers to successful implementation of e-commerce.

AMERIREAL Corporation: Information Technology and Organizational Performance by Mo Adam Mahmood, Gary J. Mann and Mark Dubrow, University of Texas at El Paso (USA)

This instructional case, based on an actual firm’s experience (name changed), is intended to challenge student thinking with regard to the extent to which information technology (IT) can demonstrably contribute to organizational performance and productivity and to which users of IT can relate their investment decisions to measurable outcomes. Relationships between an organization’s investment in IT and the effect of such investments on the organization’s performance and productivity have long been the subject of discussion and research. Managers, interested in knowing the “payoff” of such investments, are continually seeking answers to this question. A failure to understand the benefits of IT investment, or an over- or underestimation of the benefits of a planned investment in IT relative to the costs, will likely result in less than optimal investment decisions.
An Expectation of Privacy: When Does an Employer Have the Right to Monitor Employee E-mail Messages? by Andrew Urbaczewski, Washington State University and Juho Rikala, Masterfoods, Finland ISI Oy (Finland)

This case presents the ethical dilemma of an IT staff member at an academic university. The IT staffer was caught in the middle of a squabble between the dean of the business school and the associate dean, also of the business school. Professional differences spilled over into personal differences, and the dean was seeking methods of retribution against the associate dean while the associate dean was on sabbatical. E-mail is an extensively used tool at this university, and the dean suspected that the associate dean was sending personal messages on the university’s server.

While this case is based on real events in a real organization, the names of organizations and participants involved have been changed. We regret having to make changes to even the nation in which the program is located, but the tightness of the community compelled the players involved to require absolute anonymity before they gave their consent to publish.

Canon Financial Services, Inc.: The Systems and Methods Committee by Ira Yermish, St. Joseph’s University (USA)

This case examines the structure of the copier and office products leasing industry. The case reports this industry deals with information flows within the organization and among external organizations. The case describes how strong communications among various committees and players contributed toward very effective design of the information technology infrastructure, leading up to the current state of this structure. The main focus of this case study is on the steering committee charged with addressing the information technology issues throughout the organization. The Systems and Methods Committee includes representatives from each of the departments and is chaired by the manager of information systems. Perhaps most striking about this organization is the role the President plays within the committee deliberations.

Case Study of The St. Paul Companies Virtual Office for the Risk Control Division by Nancy Johnson, Capella University (USA)

This case reports the success of The St. Paul Companies with their new virtual office (VO) working environment for their U.S. distributed construction risk control and commercial risk control employees over the past six years. The program goals of operating more cost effectively, increasing contact of the risk control specialists with their customers, and reducing office space costs for The St. Paul Companies have been met. There are many good practices that have been developed over the six years of offering the program, and more refinements and changes planned. As the communications and computer technologies advance, facilitation of working from remote sites improves. While it is easier for employees to work from remote sites, maintaining the boundaries between work and personal lives is more challenging. Improving the VO employees’ and corporate employees’ understanding of the other’s working conditions is necessary to improve relationships and the acceptance of change. The concept of VO work is well established within the organization, and the demand for it is growing.

Comparative Study of the Usefulness of Online Technologies in a Global Virtual
Business Project Team Environment by Simpson Poon and Shri Rai, Murdoch University (Australia)

This case examines how online technology has been used to coordinate virtual project teams (in an educational setting) around the world. The experience from the case study is that although online technology promises to offer an independent learning environment anytime and anywhere, only some aspects of the technology is useful depending on the nature of the task. In addition, there are behavioural and cultural issues, which can be exacerbated by underdeveloped personal relationships due to constraints imposed by online technology. The case study also shows that synchronous communication is not necessarily a better means to coordinate than its asynchronous counterpart. A challenge faced by online education providers is to find the right mix and how to come up with a framework that will provide optimal results.

E*Trade Securities, Inc., Pioneer On-Line Trader, Struggles to Stay on Top by Adam T. Elegant and Ramiro Montealegre, University of Colorado, Boulder (USA)

E*Trade revolutionized the securities brokerage industry by “creating” Internet trading. E*Trade’s original strategy was to deliver cost savings to customers while amortizing fixed costs over a greater number of accounts. In 1997, several competitors established Internet sites and E*Trade was dethroned as the price leader. Its management team introduced a strategic initiative to transform the company into a financial one-stop shop for investors. The initiative included expanding its information technology, improving its marketing and advertising program, and developing new strategic alliances. By early 1999, E*Trade had established a popular Web site offering the convenience and control of automated stock, options, and mutual fund order placement at low commission rates. This case examines E*Trade’s success story and fierce competition and emerging ethical and operational problems facing the company.

Geochemia: Information Systems to Support Chemical Analysis in Geological Research by Dimitar Christozov, American University in Bulgaria (Bulgaria)

In Bulgaria, mineral resources are the property of the state. The State’s Committee of Geology (SCG) executes control and supervision and supports geological research. This case specifies the functions of “Geochemia”, information systems and technologies used to support the execution of its activities in the time of transition to market economy. It provides a basis for development of several projects such as design of database and TPS; design of a MIS for quality control; and development of DSS: Statistical Inference Procedures for usability and calibration of chemical analytical methods.

Identifying Business Processes for, and Challenges to, Electronic Supply Chain Management: A Case Study in a Small Business in North–West Tasmania, Australia by Tarmo Sinkkonen, University of Tasmania (Australia)

This case examines the business practices of a small company in North–West Tasmania and identifies problems and challenges for electronic supply chain management (ESCM). The company is adopting ESCM to increase the speed of invoice production and to improve the accuracy of inventory control in its current supply chain management (SCM) system. The
case study provides detailed analysis of the company, its merchandise and its experience of implementing ESCM. The case concludes with a summary of the shortcomings of the company’s current SCM system and the main challenges the business faces in implementing ESCM.

Information Systems and Technology Outsourcing: Case lessons from “TravelTrack”
By Jeremy Rose & Ray Hackney, Manchester Metropolitan University (UK)

This case concerns an Information Systems and Technology (IS/IT) action research intervention into a train operating company in the newly privatized rail industry in the United Kingdom. Having operated for many years as a nationalized industry under government control, but outside the strictly commercial sector, the new company found itself in the position of having many of its important IS/IT systems being run by separate companies – it was outsourced without ever having made an outsourcing decision. The project involved information management in the maintenance wing of the company. After the event analysis of the problem situation revealed the extent of the company’s IS/IT management difficulties. Many of these problems were directly attributable to privatization and the outsourcing arrangements imposed upon the new company. The lessons from the case cast serious doubts upon the long-term benefits of outsourcing key systems and are believed to represent a significant learning vehicle relating to IS/IT adoption and exploitation.

Life After a Disastrous Electronic Medical Record Implementation: One Clinic’s Experience
by Karen A. Wager, Frances Wickham Lee and Andrea W. White, Medical University of South Carolina (USA)

The majority of users of an electronic medical record (EMR) at a family medicine clinic located in a small city in the western United States are currently quite dissatisfied with the system. The practice experienced a disastrous implementation of the EMR in 1994 and has not recovered. Although the level of dissatisfaction varies among the practice employees, several influential physicians are pushing to “pull the plug” and start over with a brand new system. The authors of this case studied this practice during a more comprehensive qualitative study of the impact of an EMR system on primary care. The practice’s negative experience was particularly noteworthy, because the other four practices in the larger study were satisfied with the EMR system. As with most system failures, there are multiple organizational and other factors that have contributed to the frustrations and dissatisfactions with the use of EMR within this practice.

Mobile Technology
by Paul Cragg, University of Canterbury and Prue Chapman, Mobile Technology (New Zealand)

Mobile Technology (MT) is a small/medium sized electronics manufacturer that has been very successful and grown rapidly in recent years. Its innovative products are exported to many parts of the world. The firm relies heavily on information technology and has many staff with very sophisticated computer expertise, yet it has no IS department and has only just appointed an IS manager. The firm’s IS staff is part of an EDP team that provides IS services to all parts of MT. However, the firm is soon to be restructured into nine separate business units. This case focuses on where the firm should place its IS staff following this restructuring. The main alternatives facing management are for either a centralized or decentralized IS department.
Norwel Equipment Co. Limited Partnership (L.P.) Internet Upgrade by Kenneth R. Walsh, Louisiana State University (USA)

Norwel Equipment Co. Limited Partnership (L.P.) is a Louisiana business retailer of construction equipment specializing in John Deere heavy-equipment and has secured exclusive John Deere rights for most of the state of Louisiana. Founded in 1972, Norwel is the sixth largest John Deere construction equipment dealer in the United States. This case illustrates business and technology issues facing Norwel. The case reports the experience of Norwel regarding its communication and information systems infrastructures and shortcomings related to the use of the system for document sharing and Internet access in support of organization functions.

On-Line Analytical Processing at Washtenaw Mortgage by John H. Heinrichs, Wayne State University (USA) and William J. Doll, University of Toledo USA

In an ever-changing, competitive marketplace, executive information systems (EIS) promise the ability to simultaneously assess factors in both the internal and external environment, enabling a timely competitive response. EIS is enjoying a renaissance due to the recent emergence of on-line analytical processing (OLAP) capabilities. OLAP’s power, flexibility and ease of use supports mental model (knowledge) creation better than traditional executive information systems. This case examines the usefulness and ease of use of OLAP technology for strategic market analysis at Washtenaw Mortgage Company, a firm in the mortgage wholesale industry.

Reality of Use and Nature of Change in Small Business: A Case Study in Inefficient Compromise by Wita Wojtkowski, Boise State University (USA) and J. Craig Hardesty, Hewlett-Packard Company (USA)

This case reports about the roles that information technology plays when affecting organizational change. The case is about a small successful business that is evolving into a larger organization through the use of information technology. This case reports many challenges that this enterprise had to face and how management addressed these challenges. The case discusses numerous organizational issues presented to this organization such as staffing and service problems, major technical issues, appropriate use of database technology, sustainable expansion when undergoing technological change; CEO-owner’s (CO) role, and when a growing business employs IT to meet an increasingly competitive business environment.

SAFECO: Leveraging the Web in a Knowledge-Based Service Industry by Debabroto Chatterjee and Leonard M. Jessup, Washington State University (USA)

The Internet and World Wide Web present significant business opportunities and threats, particularly for business organizations that are knowledge-based and/or that offer primarily information-based services. For these types of firms, the Web offers opportunities that range from exchanging information with partner organizations, the delivery of existing services to customers, and the creation of new services. The potential threats include choosing the wrong strategies for adopting Web technologies, poor implementation of Web technologies, entering late into the realm of electronic commerce and thus losing market share, or worse, ignoring the use. This case examines how SAFECO, a large corporation in the insurance and financial services industry, is strategizing for and implementing technologies to exploit the
Web. SAFECO was recently ranked as one of the leading innovative users of the Web technology in its industry.

Selecting and Implementing an ERP System at Alimentos Peru by J. Martin Santana
Jaime Serida-Nishimura Eddie Morris-Abarca Ricardo Diaz-Baron Escuela de Administración de Negocios para Graduados – ESAN (Peru)

The case describes the implementation process of an ERP (Enterprise Resource Planning) system at Alimentos Peru, one of the largest foods manufacturing companies in Peru. It discusses the organization’s major concerns during the mid-90s, including increasing competition, inefficiency of business processes, and lack of timely and accurate information. To address these concerns Alimentos Peru launched several projects, one of which involved the implementation of an ERP system. The case explains the criteria used to evaluate and select the system, as well as the main issues and problems that arose during the implementation process. More specifically, the case focuses upon a set of implementation factors, such as top management support, user participation, and project management. Finally, the case concludes with a discussion of the benefits obtained from the introduction of the system as well as the new organizational challenges.

Tasmanian Police Call Centre Project – Offence Reporting Process by Leonie Thomas, University of Tasmania (Australia)

This case study provides some insight into the development of a Call Centre in the Australian state of Tasmania for Tasmania Police. The Call Centre replaced the existing Criminal Offence Modus Operandi paper-based system. The project was reliant on two other projects: Radio Network project and Project SAMSON (providing a standard desktop throughout the organisation). The project was managed by a project team with the development of the system outsourced to external contractors. The management of both the contractors and the internal Information Technology Branch is a significant part of this case study along with system development issues that organization had to face.

Telemedicine and Business Process Redesign at the Department of Defense by James A. Rodger, Indiana University of Pennsylvania (USA) and Parag C. Pendharkar, Penn State University at Harrisburg (USA)

This case reports the rationale used by the Department of Defense and the Test and Evaluation (T&E) Integrated Product Team in order to determine the military utility of the Joint Medical Operations – Telemedicine Advanced Concept Technology Demonstration (JMO-T ACTD). The case also develops Critical Operational Issues (COI) and Measures of Effectiveness (MOE) as methodologies for investigating military utility of telemedicine. In order to meet increasing global crises, the U.S. military must find ways to more effectively manage manpower and time based on the experiences gained through this project that can be used by other organizations in developing successful training programs.

Using DSS for Crisis Management by Sherif Kamel American University in Cairo (Egypt)

This case focuses on the use of crisis management support systems in Egypt in leveraging the decision making process in the government and the public sector for socioeconomic
development. It describes the experience of the Egyptian public sector in socioeconomic decision-making and the related emergence of an information-based support organization for the government “Information and Decision Support Center”. The case reflects on the type of decision-making and the crisis management mode of operation at the top policy level and the needs and requirements in terms of resources and infrastructure to support the decision making process. The case demonstrates the use of management and decision support systems in a crisis mode that has had a number of successes over the last decade that implied concrete results within the developmental process that Egypt, a developing country, is realizing.

**Information Systems Redesign in a State Social Services Agency** by Jean-Pierre Kuilboer and Noushin Ashrafi, University of Massachusetts, Boston (USA)

Successful implementation of information systems (IS) is an essential part of executing new business strategies. Yet, IS development projects are most susceptible to fail. According to a report by the Standish Group 42% of IS projects are canceled before completion. This case addresses many of the causes of IS project failure. It is based on an information system redesign project undertaken by a state social services agency. The project was aimed in automating the welfare system and providing mission-critical applications to the social workers in the field and federal subsidies distribution. The case reports many problems such as lack of proper planning, underestimating the size and complexity of the endeavor, and organizational and cultural issues surrounding government agencies, contributed to the project failure.

**Deliberate and Emergent Changes on a Way Toward Electronic Document Management** by Tero Päivärinta, University of Jyväskylä (Finland) and Airi Salminen, University of Waterloo (Canada)

A unit of Fortum Service Ltd. operates and maintains the Rauhalahti power plant in Central Finland. In 1996-97, the unit launched a project pursuing coordinated organization-wide electronic document management (EDM). This case follows deliberate and emergent changes related to document management in the organization since the initiation of the project until February 2000. New information technologies were adopted, and responsibilities for continuous improvement of EDM were assigned. The continuous improvement was implemented as an extension of the ISO 9002 quality system earlier adopted for process improvement. The case shows that a shift from the paper-based era towards organization-wide EDM is a comprehensive change both affecting and affected by several components in the organization. EDM development in the organization was part of organization recursive dynamics where the quality system supported both planning for deliberate changes and reacting to emergent changes.

I hope that the cases included in this publication can become instrumental in better understanding of the issues and challenges of information technology utilization and management in modern organizations. Furthermore, the success practices discussed in the cases in this publication will lead other organizations in devising more effective management programs to achieve successful programs in their respective organizations.

Mehdi Khosrowpour, D.B.A.
Penn State University at Harrisburg (USA)
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