Preface

The main goal of the book is to offer insight onto current research practices and trends in Information Resource Management strategies that can implemented electronically. The Internet has revolutionized business practices because it is also used within organizations to allow the exchange of electronic documents and to allow processes to flow electronically rather than with old fashioned paper. Eventually, almost all, if not all information that flows or is exchanged within an organization is turning into electronic based information. That has occurred so fast that many organizations still find difficulty in shifting all processes from a paper world to an electronic paperless world.

Organizations, e-businesses, e-governments, e-learning institutions, inter-organization cooperation, inter-sector collaboration, and even international business deals take place on a daily basis through electronic means. It is not necessary for every single organization to follow the same learning curve and fall into the same pits and troughs to arrive at a successful solution that would facilitate reaching their goals.

If that is not a sufficient reason, one may add a few comments on the tough economic times everyone is going through, which spells out a clear statement. Maximum efficiency of resources is of utmost importance to maximize possible profit. The existing business environment is not a tolerant one for mistakes, so a source of information can at least present various thought and ideas that may be considered both by researchers and theorists as well as by implementers in the real world of business.

This book reveals through several different sections and topics, the state of the art theories and practice assessments in the world with respect to real issues that arise when implementing a paperless office. In other words, this book wants to fill the head of its reader with ideas that are practical, and can be implemented. It will then be the responsibility of the decision maker to make the right choices for the suitable business application.

Yet, the book does not attempt to solve all business problems on the earth, nor does it leave the choice solely to the reader without attempting to classify the presented ideas into a format that would facilitate finding relevant work. Consequently, the book is organized into several sections.

Business modeling for example includes analyzing how to implement various strategies including the Balanced Scorecard to nonprofit domains, as well as includes how to study an electronic business modeling language and make it more flexible. This, shows that the book attempts to satisfy a diverse set of needs that includes implementation of a theory described in the book, as well as includes how to adjust tools that are already available in the market to optimize modeling outcomes. The medium of modeling is therefore also placed under scrutiny and not only the messages that modeling medium delivers.

One of the modern trends is the drive towards standards because a business that wishes to exist on the Internet wishes to interact with other businesses that also exist on the Internet. If the two businesses do not speak the same language, or if this preface is write this preface in Arabic, then the author of this
preface will lose the ability to communicate with readers. Standards, therefore, present themselves as the common language of communication between different systems, or electronic representations of the organizations.

Phones are resources that have grown exponentially and eventually became windows to the Internet resources. There were several different implementations that allowed phones to access web pages; of which some are more successful than others. The book presents ideas, and implementations of new technologies including phones and RFIDs to optimize resource management.

Communities were formed on the Internet, and that in turn implies that a benefit can be obtained from collaborative cooperation that was not possible without the Internet. Social media sites grew exponentially yet not enough benefit has been gained from the business world by this global presence on the Internet. As information grows with the growth of the Internet, data stores turned into data warehouses, and that in turn implies that rules of organizing these warehouses are necessary. A warehouse crash of data, is much more alarming from a personal computer crash while searching for information in a data warehouse is much more complicated than searching on a Personal Computer folder.

When is a process at risk, and how can security of that electronic information be undermined? Every resource is worth something to the organization that owns it, so what if the resource is information that available on the Internet. Security issues are of importance to an organization which owns that information.

Information Technology Projects are by far, the most complicated types of projects to implement because once the word integration comes up, fear of failure start to creep in. Programs have grown from a few hundred lines of code, to thousands and perhaps millions making it extremely difficult to foresee the issues that may arise. The process itself may be automated.

One of the main worries that exist in the global marketplace is the Internet threat that may exist for small to medium enterprises. To form an international marketplace implies an international level competition, so businesses can no longer grow under the security and boundaries of their own countries, until they reach a size that allows them to venture to the international arena. Instead, they are at competition from the beginning, so they are encourage to also seek online presence but is this the best way to go?

People who are interested in remaining up to date with current ideas on optimizing e-business solutions as well as those in the field of implementation should find this book interesting. New ideas, and new implementations of old ideas are both included in this publication. People who are interested in learning how their organization can be better aligned to its goals, will also be interested in the modeling section of the this publication. New technological implementations and ideas are included to allow that organization that wishes to remain one step ahead of the competition to do so. Researchers will also find regional information and comparisons, as well as know what others are working on, and the hurdles that exist in this field.

The first chapter is written as a result of collaboration between a researcher from Switzerland and another from India. It presents an approach to making the business modeling language more flexible. Frequently, modeling business processes is the distinction that exists between businesses that end up being successful and businesses that fail. This chapter presents an approach to increasing the flexibility of the Business Process Execution Language to increase its effectiveness in modeling process workflow that lead to the success of businesses.

The second chapter is a result of a collaboration of a researcher from Ireland with a researcher from the United Kingdom and presents an approach to monitor businesses. This approach enables businesses to be alerted immediately if any event requires urgent attention. The chapter presents a framework that
shows how Business Activity Monitoring can be used to improve existing business processes by placing event threshold levels that produce alerts when attention is required.

The third chapter originates from the United Kingdom to display how the balanced scorecard can be implemented for the benefit of nonprofit organizations. The original design of the balanced scorecard is based upon the for-profit organization so the main objective of implementing it is to maximize profit. Non-profit organizations, however, aim to optimize the level of the service, and to optimize the socio-technical principles through job enrichment using flexible work methods and empowerment strategies.

The fourth chapter, from the Netherlands, presents a framework called e-Planning to plan the cooperation between organizations on a network. This framework allows organizations to place an action plan for decision makers to determine who cooperation should be made with first according to set criteria, and to use critical problem solving approaches to reason about obstacles and opportunities for cooperation.

The fifth chapter from Sweden, presents a model of a Business-to-Business implementation that is developed based upon a literature review and an empirical study. The model is also accompanied by a set of implementation guidelines derived from the study. These results may guide organizations that plan to standardize B2B processes. They may also help organization improve the efficiency of their performance as well as guide future researchers towards new possibilities.

The sixth chapter from Greece, and presents an ontology-based e-Business transactions’ Registry & Repository. Ontology is an explicit specification of a concept. The Registry and Repository presented describe the composition and publishing traditional, electronic or web services, along with relevant documents, rules, semantic schemas, and workflow notations. The repository can be used by e-businesses, enterprises, government institutions and intermediaries through automation which makes it an important tool in e-business management when that business wishes to liaise with organizations in other sectors or other countries.

The seventh chapter from Australia, presents an implementation of Radio Frequency Identification in hospitals to protect high value equipment and to maximize the efficiency of processes. The tool utilized is a radical new technology, and implementations may go far beyond what is presented.

The eighth chapter from Turkey builds on the fact that emerging markets have experienced exponential growth in mobile phones per capita causing them to contribute to Mobile Government research to provide cheaper and more inclusive and services to all. This chapter explores, the legitimacy and resistance facing civil servants’ at the engagement stage with m-government activities and the direct implication for resource management. The findings show that three types of resources are perceived as central namely: (i) diffusion of information management, (ii) operating system resource management and (iii) human resource management. The goal is to identify the hurdles that have to be crossed in order to offer this type of services.

The ninth chapter from Romania, encourages the provision of eservices. The prefix “e” stands for electronic. The goal of this chapter is to present a system that allows the use of Smartphones, and PDAs (Personal Digital Assistants) to clients through client server architecture. This would allow clients to be able to access the information provided from anywhere they happen to be at any time of day that suits them.

The tenth chapter comes as a result of collaboration between the United Arab Emirates and Canada to present an implementation utilizing mobile technology. Employees expect to retain access to corporate services as they move from one location to the next using various types of handheld devices. This chapter proposes a broker-based Web services provisioning system for mobile users with quality of service (QoS) requirements. It describes a set of cooperative brokers, distributed over different sites, that work
together to provide personalized services to mobile users while they move from one location to another in their corporate and partners’ networks. Access to QoS-enabled Web services is obtained according to the users’ home policies. Policies are a key component of the system as they are involved at different levels: authorization, QoS specification, QoS service monitoring, and service selection.

The eleventh chapter comes from Greece to present an e-voting site that ranks articles or translations of terms utilizing Web 2.0 technology and collaborative knowledge. A proposed e-dictionary called “Wiki-Dic”, a few experts fill out a dictionary with words and translations and users are later allowed to look up translations and to vote for the translations. The most voted translations go to the top. Appropriate security countermeasures are used to deal efficiently with the “one vote per person” problem and to avoid malicious software. Furthermore, an intelligent algorithm that is giving weights to the voters is implemented. In this way, the weights are computed automatically from the application, based on quantitative and qualitative information as well.

The twelfth chapter comes from Sweden. The architecture of a system that supports the distributed development of conceptual models is presented. This is done based on the analysis of conversations and think aloud modeling sessions that are held. The basic activities of the modeling teams are identified based upon the social, pragmatic, semantic and syntactic level, and a schema is derived.

The thirteenth chapter comes from China to present a solution to the organization and management of remote sensing data for collaborative visualization services. Satellite remote sensing imagery data is an important Geospatial data which is playing an increasingly important role in many applications such as crisis management, military activities and government decision-making. A global hierarchical data model of massive multi-dimension remote sensing data based on tiling and pyramid technologies is proposed for the organization of this class of data. A collaborative Geospatial data visualization system is implemented based on the proposed storage structure of data model using Web Services, WSRF and Web2.0 technologies. Then prototype system is evaluated with real data sets.

The fourteenth chapter comes from France to present a data warehouse solution because native-XML database management systems (DBMSs) currently bear limited performances and it is necessary to find ways to optimize them. The chapter presents two techniques. The first is an XML join index that is specifically adapted to the multidimensional architecture of XML warehouses. The second is a strategy for selecting XML materialized views by clustering the query workload. To validate these proposals, the response time of a set of decision-support XQueries over an XML data warehouse is measured, with and without using our optimization techniques. Results demonstrate the efficiency of the proposed solutions.

The fifteenth chapter comes from Iran to manage risk using Riskit methodology. Business to Software Unified Process (BSUP) has been the proprietary Business to software modeling approach introduced for the first time in 2003. This chapter applies the capabilities inherent to BSUP to optimize Riskit process model.

The sixteenth chapter comes from Canada to review current security research by applying knowledge management concepts and frameworks as a tool and lens. Based on the systemic review, this chapter identifies gaps in the current IS security literature and provides some guidelines for security practices. Knowledge about security is a critical factor in maintain the security of knowledge.

The seventeenth chapter comes from the Kingdom of Bahrain to present a solution to the difficult problems facing the vendors, users, and experts involved in COTS software evaluation, selection, and acquisition and guides them systematically to make the best educated decision. The research is based on real experience obtained from the analysis of three case studies of major COTS software acquisition projects in Bahrain.
The eighteenth chapter comes from Taiwan to show some of the problems that may arise in outsourcing IT projects. Prior research on IS/IT outsourcing decisions simply assumed the decision-making process is rational, comprehensive and independent that is not descriptively accurate, and thus, cannot be prescriptively useful in such a complex environment. In order to gain a deeper understanding of decision-making in IS/IT outsourcing processes, this chapter creates an outsourcing decision framework, derived from a dynamic perspective, to illustrate the decision-making process and how the decisions impact outsourcing results. An in-depth case study methodology is used to interpret an e-strategy transformation outsourced project. The analysis indicates interwoven decisions, knowledge as power, decision-makers’ cognition, and ideologies should be the focus of future studies on IS/IT outsourcing.

The nineteenth chapter comes from the United Kingdom about Saudi Arabia. Saudi Arabian Small and Medium Enterprises (SMEs) will face fierce competition from new entrants to local markets as a result of their accession to the World Trade Organization (WTO), and electronic commerce (e-commerce) technologies can reinforce SME’s competitive edge. This study investigates the state of e-commerce adoption and analyses the factors that determine the extent to which SMEs in Saudi Arabia are inclined towards deploying e-commerce technologies. This could assist future firms in designing effective implementation projects. Seven SMEs’ e-commerce adoption levels are studied as a case. The Technology-Organization-Environment (TOE) framework was used as the major source of inspiration in our analysis of e-commerce adoption amongst Saudi SMEs. In addition to advancing research on e-commerce in Saudi Arabia, this chapter also highlights several directions for future inquiry and implications for managers and policymakers.

The twentieth chapter from Oman reviews the UN and World Economic Forum ICT indicators for assessing the adoption of Information and Communication Technologies (ICT) in Gulf Cooperation Countries (GCC). It presents the results of an exploratory study carried out to learn about the adoption of ICT in SMEs in Oman. The study provides an insight on the barriers for the adoption of ICT mainly represented in that only a small number of SMEs in Oman are aware of the benefits of ICT adoption. A majority of surveyed SMEs have reported a positive performance and other benefits by utilizing ICT in their businesses. A number of SMEs outsource most of their ICT activities. Lack of internal capabilities, high cost of ICT and lack of information about suitable ICT solutions and implementation were some of the major barriers in adopting ICT. These findings are consistent with other studies. There is a need for more focus and concerted efforts on increasing awareness among SMEs on the benefits of ICT adoption. The results of the study recognize the need for more training facilities in ICT for SMEs, measures to provide ICT products and services at an affordable cost, availability of free professional advice and consulting services at reasonable cost to SMEs. These findings therefore have important implication for policy aimed at ICT adoption and use by SMEs.

The twenty-first chapter is from Jordan. It uses clustering and classification to support web designers to have better designed retail websites. This is done during the design phase by improving the structure of the website depending on the extracted patterns in a way that makes it easy for the website’s navigator to find his target products in an efficient time, give him the opportunity to have a look at some products that may be of interest for him, and encourage him to buy more from the available products which will consequently increase the business’s overall profit. This approach will open the eyes of business leaders to adapt new efficient technological tool that when invested in their organizations will improve the strategic goals and meet their basic requirements to be successful, productive, and competitive. The experimental work shows very promising results that can positively change the traditional techniques of the process of designing retail websites.
With respect to research, this book collects a number of experiences and ideas from different parts of the world. The combination of this work into one publication was not easy, and the main goal is to produce work that is of value to people that are not able to travel to all those countries to gather experiences and knowledge. Consequently, the variety is intended, while the similarity in the overall topics of concentration is emergent. The list of topics proposed were more than those that emerged, simply because it would allow the world to tell us, what the currents trends are. True enough, the areas of researcher interest emerged as exhibited above.

With respect to organizations and businesses, this book presents a generally non-technical source of information of possible implementations that may optimize business practices. It presents implementations for mobile phone technology, RFIDs, etc. Consequently, it presents complete descriptions of implementations or ideas of how new technology can serve business goals. The book also presents how standards could be implemented, and how organizations can interact online. Document procurement is yet another business idea that is presented in this book. Existing business, as well business ideas for new businesses may emerge as a consequence of this book.

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