E–Strategies for Resource Management Systems: Planning and Implementation

Eshaa Alkhalifa
Royal University for Women, Bahrain
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Nishant Singh, Indian Institute of Technology, India

Modeling business process is frequently 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.

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Owen Molloy, National University of Ireland, Ireland
Claire Sheridan, Accenture Information Management Services, UK

At times of economic hardship, it is essential for businesses to keep a close eye on business activities and outcomes in real-time. This would enable businesses to be alerted immediately if any event requires urgent attention. This chapter, presents a framework that shows how Business Activity Monitoring can be used to improve existing business processes. This is an event driven model, so various thresholds are placed such that alerts are generated when key performance pass them. The framework uses an integrated rules engine taking advantage of semantic technology and relating it to the business processes.
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Trevor Wood-Harper, University of Manchester, UK

This chapter displays 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.

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Pascal van Eck, University of Twente, The Netherlands
Lourens Riemens, Dutch Tax and Customs Administration, The Netherlands

This chapter 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.

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This chapter 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.

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Dimitris Askounis, National Technical University of Athens, Greece
John Psarras, National Technical University of Athens, Greece
This chapter presents an ontology-based e-Business transactions' Registry & Repository. An 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.

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N. Meltem Cakici, Gediz University, Turkey
Ronan de Kervenoael, Sabanci University & Aston University, Turkey

Emerging markets have recently been experiencing a dramatic increased in the number of mobile phone per capita. M-government has, hence, been heralded as an opportunity to leap-frog the technology cycle and provide cheaper and more inclusive and services to all. This chapter explores, within an emerging market context, the legitimacy and resistance facing civil servants' at the engagement stage with m-government activities and the direct implication for resource management. Thirty in depth interview, in Turkey, are drawn-upon with key ICT civil servant in local organizations. 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 main evidence suggests that legitimacy for each resource management, at local level, is an ongoing struggle where all groups deploy multiples forms of resistance. Overall, greater attention in the resource management strategy for m-government application needs to be devoted to enablers such as civil servants rather than the final consumers or citizens.

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Eugen Pop, SC IPA SA, Romania
E-services is a term which generally means the provisioning of services via the Internet. The prefix “e” stands for electronic. E-services access is a good opportunity for business developing and offer increased financial benefits for various economic agents. By the support of the Internet, the products or services can be efficiently offered to a large number of clients. Besides, the mobile communications networks give to the clients the advantage to access the informational services from anywhere and anytime. This will facilitate an increasing convergence of technological and financial interests of mobile operators, client server software developers, mobile terminals producers and e-content providers, along with a high level of integration of IT&C resources. This is a good basis and a challenging opportunity for value added services developing, in order to be delivered through the mobile communications networks. Client server architectures with mobile users are suitable for e-services providing, using mobile communications networks. Such a system is presented in this chapter, suitable for business environment access using mobile applications installed on Smartphones and PDAs (Personal Digital Assistants).

Chapter 10
Personalized Web Service Provisioning to Mobile Users USING Policy-Based Profile and QoS Management

Elarbi Badidi, United Arab Emirates University, UAE
Larbi Esmahi, Athabasca University, Canada

This chapter presents an implementation utilizing mobile technology. The expectation of employees now is that they can retain access to their corporate services as they move to new locations, using various kinds 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.

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Theodorou L. Tryfon, University of Macedonia, Greece
Violettas E. George, University of Macedonia, Greece
Georgiadis K. Christos, University of Macedonia, Greece

We may define e-voting as the process of evaluating an article or ranking a translation of a specific scientific term in a relevant web site. This all process of participation and interaction is one of the Web 2.0 definitions, the collaborative knowledge. On-line dictionaries have to consider this factor in order to succeed. They have to be interactive and they have to attract and support the users' participation and
contribution. In the proposed e-dictionary, namely “Wiki-Dic”, some experts begin a dictionary, they start filling it with words and translations, and all users are allowed not only to look for the translation, but also to vote for it. The most voted translations go to the top. In addition, 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 our application, based on quantitative and qualitative information as well.

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Peter Rittgen, University of Borås, Sweden & Vlerick Leuven Gent Management
School, Belgium

This chapter studies collaborative modeling by analyzing conversations and loud thinking during modeling sessions and the resulting models themselves. It identifies the basic activities of the modeling teams on the social, pragmatic, semantic and syntactic levels and derives a schema for the pragmatic level. This main conclusion is that team-based modeling is largely a negotiation process. Drawing on these results an architecture of a system that supports the distributed development of conceptual models is presented.

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Chunyang Hu, Beihang University, China
Yongwang Zhao, Beihang University, China
Dianfu Ma, Beihang University, China

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. However, it will continue to be a great challenge to organize and manage these multi-dimension massive remote sensing data for collaborative visualization services in Internet environment. In this chapter we proposed a global hierarchical data model of massive multi-dimension remote sensing data based on tiling and pyramid technologies for the organization and management of multi-source and multi-scale remote sensing data. We implemented a collaborative Geospatial data visualization system based on our proposed storage structure of data model using Web Services, WSRF and Web2.0 technologies. Finally, we evaluated the prototype system with real data sets, which demonstrated the high performance data visualization in our system.

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Hadj Mahboubi, Université de Lyon, France
Jérôme Darmont, Université de Lyon, France
XML data warehouses form an interesting basis for decision-support applications that exploit complex data. However, native-XML database management systems (DBMSs) currently bear limited performances and it is necessary to research for ways to optimize them. In this chapter, we present two such techniques. First, we propose an XML join index that is specifically adapted to the multidimensional architecture of XML warehouses. It eliminates join operations while preserving the information contained in the original warehouse. Second, we present a strategy for selecting XML materialized views by clustering the query workload. To validate these proposals, we measure the response time of a set of decision-support XQueries over an XML data warehouse, with and without using our optimization techniques. Our experimental results demonstrate their efficiency, even when queries are complex and data are voluminous.

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Pooya Khosraviyan Dehkordi, Islamic Azad University, Iran
Farshad Kiyoumarsi, Islamic Azad University, Iran

Riskit is a now a world-wide risk management methodology deployed by a number of expert software engineering communities since its first rollout. Business to Software Unified Process (BSUP) has been the proprietary Business to software modeling approach introduced for the first time in 2003. In this paper the goal is apply the capabilities inherent in BSUP to optimize Riskit process model. BSUP, UML 2.0 and Fuzzy Logic Concepts are widely used whenever the model is to be made.

Chapter 16
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Ken H. Guo, McMaster University, Canada

Knowledge is one of the critical factors that organizations need to consider when managing the security of resource management systems or information systems (IS) in general. This is because knowledge is not only the object but also a tool of IS security management. On the one hand, IS security is about the security of knowledge (including data and information). On the other hand, IS security management is a knowledge-intensive activity that depends heavily on IS professionals’ expertise and skills and end-users’ awareness. Given the important role of knowledge, this chapter aims 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.
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  Seema Ahmed Al-Mahmood, Ahlia University, Kingdom of Bahrain
  Mansoor Al-A’ali, Ahlia University, Kingdom of Bahrain

Two of the most important COTS software acquisition processes are the COTS software solution evaluation and selection process and the COTS software solution contract management process. This chapter presents a new methodology to deal with these two phases in detail. The evaluation and selection part consists of 12 steps divided over four phases. The contract management part consists of nine steps divided over four phases. We explain each of the two parts of the methodology by describing each of the 21 steps. This research presents 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. To our knowledge, this work presents the first integrated solution to the software evaluation, selection, and acquisition processes of COTS software. The research is based on real experience obtained from the analysis of three case studies of major COTS software acquisition projects in Bahrain. This chapter is a step forward in the continuous research of COTS software acquisition and procurement processes.

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  Cheng-Chieh Huang, National Taiwan University, Taiwan (R.O.C.)
  Ching-Cha Hsieh, National Taiwan University, Taiwan (R.O.C.)

Making decisions in an IS/IT outsourcing project is complex and the outcome is unpredictable. 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.

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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.

Chapter 20
ICT Adoption in SMEs in an Arab GCC Country: Oman

Rafi Ashrafi, Sutan Qaboos University, Oman
Muhammed Murtaza, Industrial Management Technology & Contracting LLC, Oman

This chapter reviews UN and World Economic Forum ICT indicators for assessing the adoption of Information and Communication Technologies (ICT) in Gulf Cooperation Countries (GCC). Also, it presents the results of an exploratory study carried out to learn about the adoption of ICT in SMEs in Oman. The study investigates infrastructure, software used, driver for ICT investment, perceptions about business benefits of ICT and outsourcing trends of SMEs. The study provides an insight on the barriers for the adoption of ICT. Data on these aspects of ICT was collected from 51 SMEs through a survey questionnaire. The results of the study show that only a small number of SMEs in Oman are aware of the benefits of ICT adoption. The main driving forces for ICT investment are to provide better and faster customer service and to stay ahead of the competition. 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. Our findings therefore have important implication for policy aimed at ICT adoption and use by SMEs. The findings of this research will provide a foundation for future research and will help policy makers in understanding the current state of affairs of the usage and impact of ICT on SMEs in Oman and other GCC countries.
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Asem Omari, Jarash Private University, Jordan

Selling products or services online plays an important role in the success of businesses that have a physical presence, like a retail business. For many businesses, a retail website is an effective line of communication between the businesses and their customers. Even if the business does not present all of its products and services in the website, the website may be just what the customer needs to see to choose it over a competitor. Therefore, it is important to have a successful website to serve as a sales and marketing tool to participate in meeting the core requirements of the business. Clustering and classification are two important data mining techniques that are widely used to assign customers to different categories. Those categories are used to analyze customer behavior and interestingness. In this chapter, we use 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.

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