

Proceedings of 4th International Conference on e-Government

**RMIT University
Melbourne
Australia
23-24 October 2008**

Edited by

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Trinity College, Dublin, Ireland

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Many thanks to the reviewers who helped ensure the quality of the full papers.

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ISBN: 978-1-9066938-21-4 CD

Published by Academic Publishing Limited
Reading
UK
44-118-972-4148
www.academic-publishing.org

ICEG 2008

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Preface

Conference Executive:

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[Professor Brian Corbitt](#), RMIT University, Australia

[Professor Michel Plaisent](#), University of Quebec in Montreal, Canada

[Professor Mohini Singh](#), RMIT University, Australia

[Professor Ken Sochats](#), Director of the Visual Information Systems Center, University of Pittsburgh, USA

Conference Committee:

The conference programme committee consists of key people in e-Government around the world. The following people have confirmed their participation:

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Biographies of Conference Chairs, Programme Chair and Keynote Speaker

Conference Chair

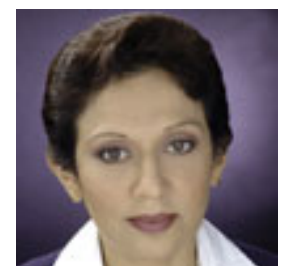


Professor Brian Corbitt is currently Professor of Management Information Systems, Head of the School of Business Information Technology and Dean, Research and Innovation at RMIT University, Australia. He has previously been Adjunct Professor of IT at KMIT (NB) and then Professor of Management Science at Shinawatra University in Thailand, Pro Vice Chancellor (Online Services) at Deakin University, JADE Professor of eCommerce at Victoria University of Wellington in New Zealand, and prior to that lectured at the University

of Melbourne, where he was also Head of International House, and before that Monash University. He has extensive experience in the application of information systems in developing countries. He worked in Thailand for 15 years and is very knowledgeable of the Thai Economic, Health, Social and Health systems. He is the author of a major report to the Australian Government in 2006 of Higher Education demands in Thailand. He specializes in IT policy development, in Health Information Systems design, analysis and implementation; in Business Modeling and Design and Electronic Commerce trade relationships, and knowledge management. He has published 6 books on eBusiness, eCommerce and eGovernment, and another 4 books. He has also published over 150-refereed scholarly papers, and also numerous government reports to the Governments of Thailand and New Zealand, and some 20 invited papers as a keynote speaker on IT policy in Malaysia, Singapore, Thailand, New Zealand, Japan, Hong Kong, and Australia. His current research is on risk alignment in health systems in Thailand and Australia and modelling agricultural supply chain systems in Vietnam.

Programme Chair

Mohini Singh is a Professor of Information Technology and e-Business in the School of Business Information Technology. She is the RMIT University representative on FEAST (Forum for European and Australian Science and Technology cooperation) and the Director, Industry Engagement. She earned her PhD in New Technology Management from Monash University, and has published widely in the areas of E-Business and New Technology and Innovation Management. Her publications comprise books, book chapters, journal and conference papers. Her presentations include keynote addresses and conference presentations at national, international and industry forums. She is the principal editor of two highly regarded books on E-Business, and serves as a member on the editorial boards of several international journals. Mohini was the founding director of the E-Commerce Research Unit at Victoria University. She is the eCommerce/eBusiness track chair at the IADIS International Conference on E-Society and the editor, Journal of Internet Commerce, a special issue on emerging e-business issues. Her current research projects are on the impact evaluation of e-government on rural and urban communities and the role of CIOs in the public sector



Keynote Speaker



Miriam Lips is the first Professor of E-Government at Victoria University of Wellington with positions in the School of Information Management and the School of Government, and a Research Associate at the Oxford Internet Institute, University of Oxford. Her Chair at Victoria University is sponsored by Datacom systems Limited, the New Zealand State Services Commission, Cisco New Zealand Limited and FX Networks Limited.

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Liaqat Ali is a student of PhD and part time lecturer at the School of Computing and Technology in University of East London, London UK. He is weeks away from completing his PhD in Information Systems. His research interest is about E-accessibility and the security of online banking services for visually impaired people. He has written and presented several papers in different conferences about the issue of E-accessibility.

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Smithana Chaijenkij is a Ph.D. candidate of Business Information Technology at RMIT University; Melbourne, Australia. She holds a bachelor of Electrical Engineering; Bangkok, Thailand and a master of Telecommunication Systems; Chicago, USA. She has been working for Thai government as an IT specialist since 2002. Her main research interests are e-government policy, implementation, development and evaluation.

Xiaoyi Chen, who got her Bachelor and Master Degree of Computer Science from Wuhan University, China, and is a Doctoral Course Student (Sep 2005) in Information School of Japan Advanced Institute of Science and Technology (JAIST) now. Research interests are formal methods, digital rights management and modeling, specification and verification of e-Government systems.

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Eric Deakins has previously worked in the UK and USA in senior management and business consulting roles. His research interests concern the utilisation of strategic information systems in high performance organisations, such as to achieve supply chain integration and seamless e-government. Eric has published over 60 articles and serves on several editorial boards. His international consulting activities include innovation management and holistic process redesign

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Paul Henman is senior lecturer in social policy at The University of Queensland, Brisbane, Australia. He holds degrees in computer science and sociology. His research has focused on the contribution of information technologies to public policy processes. His publications include Administering Welfare Reform: International Transformations in Welfare Governance (Policy, 2006)

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Patrik Hitzelberger is a project manager at the "Centre de Recherche Public - Gabriel Lippmann" in Luxembourg" (CRP-GL). He has worked for several years as a software developer and project manager in industry and science in Germany. Since joining the CRP-GL in 2001, his research interests have included interoperability of IT systems and one-stop-government and business process modeling for public administrations.

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Aqueo Kamada is a senior researcher at CTI – Renato Archer Information Technology Center and a lecturer at Unicamp - State University of Campinas. He graduated in Computer Science from Unicamp, and obtained his MSc and PhD degree in Computer Engineering from the same university. Dr Kamada's research area is on software engineering with focus in business rules, electronic government, Web and SOA based systems, and DBMS.

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Gabor Laszlo is currently teaching at Budapest Tech whilst at the same time he manages the Information Society Research and Education Group within the same institution. He has working on his doctorate at the Budapest University of Technology and Economics. His research interests focus on open source software and its applications in the public sector. He has contributed a position paper on strategy-planning document for the National Open Source Strategy in Hungary as co-author. He has background in both economics and technology.

Miriam Lips is the first Professor of E-Government at Victoria University of Wellington with positions in the School of Information Management and the School of Government, and a Research Associate at the Oxford Internet Institute, University of Oxford. Her Chair at Victoria University is sponsored by Datacom systems Limited, the New Zealand State Services Commission, Cisco New Zealand Limited and FX Networks Limited.

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Goonasagree Naidoo was born in South Africa (SA). She pursued her studies at the University of Kwa-Zulu Natal (B.Bibl and honours and MA degrees in Public Administration), University of

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Hamed Al Namani is currently working on his doctorate at the Department of Management Systems at the University of Waikato. His early career was as a government officer in Oman. His research interest is in the area of online social networking and its implications for future forms of e-government

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Sue Vreugdenburg is a practicing Records Manager completing the Master of Information Services by long distance education with Edith Cowan University. Prior to specializing in information science, Sue worked in many industries that have proved beneficial in her current profession. Sue is a professional member of the Records Management Association of Australasia, the Australian Society of Archivists and AIIM. Her interests are information architecture, information retrieval, knowledge management and managing business risk automatically through the design and use of business information systems using standards and legislation. She believes that working with metadata standards based on legislation and standards provides business with an automatic platform of evidence of compliance and accountability through recordkeeping and ensures quality of information retrieval and the asset value of data.

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Patient's Medication Information and e-Health Development in Finland: A Case Study of a Finnish Primary Care Organization

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Abstract: In the healthcare sector, the savings achieved with smooth electronic transfer of information are more significant than just financial; patients' lives could be saved. Patient's medication information is often mentioned to be essential for successful treatment decisions and if not available, a possible cause of injuries. In Finland, electronic patient records (EPRs) have already been in use for years in the healthcare sector organizations. Despite that, patient information cannot yet be exchanged between different healthcare organizations. The reasons for that are several but the most significant are legal issues related to patient protection and the incompatibility of the EPRs that have been chosen community-specifically.

In this qualitative study, the current sources of medication information and the fulfillment of mainly non-technical data quality characteristics are studied in a Finnish primary care organization and assessed in the light of future national level e-Health solutions. The study is part of a grant-funded project aiming at supporting national level decision-making related to the management of medication information.

Patient's medication information refers to the information on the current medication regimen, medication history, drug allergies and other patient-specific information. To truly support the decision-making of the clinicians, the medication information should be among other things, accurate, comprehensive and accessible. The future e-Health solutions in Finland include implementation of e-Prescriptions and a database for them, another national centralized archive for patient information and an interface for patients to see their own information. There is also under planning a self-reporting portal for the citizens. The empirical data consists of 10 healthcare professionals' interviews concerning the use of medication information at their clinical work and 5 interviews of experts involved in the national level e-Health development projects. The aim of the paper is to define the healthcare professionals' current sources of information and perceptions on the quality of the used data and to assess what kind of enhancements will be achieved with the future e-Health solutions, and what should be taken into account at this stage of the development.

The interviewed professionals reported that patients' medication information is often dispersed even in the EPR of the organization and that there is no guarantee that the list in the EPR is up-to-date. Therefore patient or a family member is usually the most important source of information. According to the experts, the problems related to the above mentioned issues could be at least partly solved with the help of the e-prescription database (e.g. whether patient has bought the medications). As the patients already have an important role as information sources, increasing their roles' as self-reporters through a portal could be one of the future solutions in decreasing primary care professionals' workload and enhancing the quality, at least the comprehensiveness, of the medication information. Other possibilities are related to the combination of the information from the archives.

Keywords: Medication information, primary care, e-health, finland, case study

Evaluation of Federal and State e-Government Websites in Malaysia

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Abstract: As citizens are responsible for electing the government at the Federal and State levels in Malaysia they expect the government to adopt strategies that improve citizen access to government information, services and expertise to ensure citizen participation in and satisfaction with the government process. One way that the government can accede to this inquisition is to offer online services and products through the E-Government websites or portals. The E-Government websites at Federal and State government levels vary from one another considerably in terms of their technological design as well as their contents. For the purpose of measuring the generic aptitude of the State and Federal government to employ e-government, the Web Presence Measurement Model employed by the United Nations for the Global E-Government Survey 2003, was used to evaluate the websites. Evaluation of MyGovernment, the Malaysia's Government official portal and 13 State government websites as well as State agencies websites serving crucial functions of government such as economic development was conducted. The study was able to identify the current state of development of sophistication or maturity of E-Government websites and the stage of fitness of those websites in the cyber space. It was found that the portal MyGovernment which won a global ICT top award in May 2008 was far ahead in term of sophistication, followed closely by the websites of the Ministry of Agriculture and Agro-Based Industry and the Ministry of Tourism. The websites of all the State Governments in Malaysia are fairly good but the State Agencies websites have several deficiencies especially in incorporating the E-government applications such as E-procurement in their websites. The Web Presence Measurement Model is a useful tool in identifying the presence or absence of certain indicators which are related to the measures of sophistication or maturity of the websites as exemplified in this study. Having identified the shortcomings the relevant authorities especially MAMPU should take steps to improve the situation of the public sector websites especially related to Agencies operating at State level.

Keywords: e-Government, Malaysia, state government, Web presence Indicator, website evaluation

Formulation of Empirical Factor Relations influencing e-Government Preparedness

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Abstract: The concept of e-Government comprises of three main domains viz., e-administration, e-citizens and e-society [Heeks, 2001] and is a question of interplay among various e-Government actors which viz., political organisations, administrative bodies / public sector, business organisations / associations, training & research organisations and citizens / civil societies. Also, it has been found from various studies that a certain level of e-Government preparedness (sometimes referred as e-readiness) is an essential condition for initiating e-Government. Since the implementation of e-Government is citizen centric and involves numerous activities influencing e-Government preparedness, an attempt has been made to link these activities to various e-Government actors with a proposed Actor-Activity e-Government Framework wherein the e-Government activities were treated as factors responsible for success / failure of e-Government. This paper attempts to relate e-Government actors with the factors, formulating relationship and showing the level of involvement of each actor on the factors, which would subsequently indicate the level e-Government preparedness and the success / failure of e-Government.

Keywords: e-Government actors, e-government activities, e-government framework, factor relations, e-government preparedness

e-Accessibility: A Challenge to Implement e-Government Successfully

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Abstract; e-Government is the use of ICT to transform government by making it more accessible, effective, efficient and accountable. This transformation ranges from providing wider access to government information and promoting civic engagement and providing development opportunities for all members of society regardless of their physical limitations. For successful implementation of electronic government different factors must be brought into consideration. In addition to infrastructure development, trust, privacy and cyber security, e-accessibility is an important participating factor. e-accessibility is about social inclusion and equal opportunities. In the current population there are significant numbers that are visually impaired. These people tend to be excluded from the socially popular vehicle for e-Government due to the inaccessibility of e-Government website. This paper attempts to explore the importance of electronic accessibility for successful implementation of electronic government projects using World Wide Web. The paper claims that a very little importance has been paid to the features of E-accessibility in developing the eGovernment Websites to facilitate participation of all parts of society including people with disabilities.

Keywords: e-accessibility, e-government, WCAG 1.0, WWW, W3C, tools

A Conceptual Model of Citizens' Trust in e-Government

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Abstract: Governments all over the world have launched their e-government initiatives. As a consequence of the rapid development and implementation of e-government applications, research on e-government has gained a great deal of researchers' attention. However, very little has been written on citizens' likelihood to use and trust e-government. Most of existing literatures on trust in e-government focus on technical perspective such as PKI. This paper presents the citizens' trust aspects in e-government. The aim of this paper is to develop a conceptual model of citizens' trust in e-government. This is contextualized by investigation the factors that are most likely influence the citizens' trust in e-government transactions. The proposed conceptual model of citizens' trust in e-government is integrated constructs from multiple disciplines: psychology, sociology, e-commerce, and HCI. The model will help governments to facilitate and develop citizens' trust in e-government. In addition, it will fill the gap in the literature by providing a model citizens' trust in e-government.

Keywords: e-Government, trust, perceived risk, citizens' participation, technology acceptance model

The Success Factors of Electronic Medical Records (EMRs) Implementation Through Clinical Microsystem in Selected Malaysian Government Hospitals

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Abstract: Healthcare is provided to patients by caregivers who give in complex organizational arrangements but the overwhelming amount of their own daily work is part of a clinical microsystem. The concept of clinical microsystem places medical error and harm reduction into the broader context of safety and quality of care by providing a framework to assess and evaluate the structure, processes and outcomes of care. The purpose of this paper is to examine the elements of the clinical microsystem developed by the Institute of Medicine (Godfrey & colleagues, 2004) and how these elements can lead towards successful of electronic medical records (EMR) implementation in the Malaysian Government Hospitals. Among the critical elements of the clinical microsystem analysed in this paper include leadership roles, teamwork, working environment, patient needs and market focus, the use of electronic tools for patient care improvement, process of changes in implementing EMR and the role of technology in facilitating the integration of healthcare work. The concept of microsystem could provide a new frontier in organizational health services management research. There is an urgent need for research to be carried out to asses how well the government of Malaysia is in a position to provide efficient healthcare services within the context of electronic medical records implementation as the government is making a significant investment in healthcare for its citizens.

Keywords: Healthcare, clinical microsystem, quality improvement, electronic medical record

Election Campaigning in the Era of Web 2.0 and Social Media

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Abstract: Political players have followed marketers in seeking to leverage the social capital provided by the recent popularity of Web 2.0 technologies and online social media. This paper examines the extent to which such online trends are impacting election campaigning. It assesses the impetus of Web 2.0 and the associated growth of social media, particularly in the Australian context.

The paper analyses the emerging role of e-campaigning and highlights the niche it now occupies. Whilst broadcast television is still the dominant player, in Australia as in election campaigning elsewhere, there is empirical evidence that a viable campaign needs to integrate diverse communication media. The online world is increasingly a key component of such strategies.

Keywords: e-Campaigning, social networks, web 2.0, participation

You've Got Mail': Accountability and End User Attitudes to Email Management

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Abstract: In a pioneering ethnographic study of end user responses to the problem of 'information overload' Whittaker and Sidner (1996) found that the design of systems primarily as methods of asynchronous communication, posed significant information management problems for users. In another contemporaneous study, David Bearman (1993) extended understanding of the implications of end user email management behavior by identifying significant accountability implications for organizations arising from the use of email. Recent case studies in the United States and Australia (Leopold, 2008; Raleigh Chronicle, 2008; Strutt, and Taylor, 2007) have once again focused attention on the accountability consequences for Government of email management.

Employing elements of Whittaker and Sidner's (1996) typology, in a research design involving quantitative and case study methods, this study explores end user attitudes and behavior in email management with consequences for Australian Government accountability in an era of e-Government. The paper addresses the need of information policy makers, Chief Information Officers (CIOs) and information and records managers to be informed about current vectors in compliant email management.

Keywords: Email, archives, email management

Motivating Dynamics Toward e-Government Policy and Implementations

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Abstract: e-Government is the use of all information and communication technology (ICT) to deliver government information and services to citizens. It is considered as the compelling tool to broaden digital dividends across distinctive social sectors of developing countries. Many developing countries are trying to achieve e-Government objectives which improve public service delivery to citizens and to enhance the relationships among citizens, businesses and government more effectively and more efficiently. e-Government policy and implementation from developing countries are reviewed in this paper. Thailand is chosen as a single case study because it is one of developing countries which has experienced some successful e-Government projects. Thus, various elements that constitute readiness in implementing e-Government are identified. A new trial of the future e-Government guide in government sector is necessary to understand how the best practice of e-Government projects accomplishes and provides better service to citizens. During the evaluation of major e-Government projects in Thailand, an understanding of stakeholder perspectives can assist the government to develop a service plan, supply helpful information to other government departments at similar phases of implementation. Therefore, this study can provide more comprehension and more explanation about complex government organizational structures. It also examines the development of integrated ICT infrastructures in the public sectors. This paper explains how e-Government has been using e-Government strategies and has successfully been achieving in Thailand, in particular e-Revenue (Tax-online). The main focus of this paper is to identify the factors which support and lead to the achievement of e-Government objectives in Thailand directly from the civil servants' perspectives. Moreover, it shows the relationship among the Thai institutions, their behavior and reactions to the consequences of the e-Government initiatives. The study was conducted by interviewing the government administrators in Finance Ministry. The findings are analyzed and presented critical factors which are derived from organizational, technical and executive analysis to improve e-Government evaluation. Moreover, this analysis provides more understanding of e-Government policy and implementation for further studies.

Keywords: e-Government implementation, government policy, motivating factors, organizational factors, technical factors and executive factors

Public Financial Reporting with Transparency Consideration under the Semantic Web Environment

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Abstract: Recently, the semantic web, which separates content information and format information, is advantageous for information provision and data mining, is studied by more and more researchers. XBRL(eXtensible Business Reporting Language), as an application of semantic web in the financial reporting area, to disclose financial reporting on the internet is expected to reform the traditional financial reporting model, by changing the preparation, storage, transmission, implementation approach and technological means of financial reporting in the internet environment. With XBRL, government financial information can be available on web; the public could continuously assess a government agency through everyday interaction. The financial accountability of government and its response to public demands for information and services are thus a contribution to government openness and transparency.

Therefore, government's use of information technologies, known as e-Government, could become the instrument that makes regular timely information on public finances more forthcoming; however it is difficult to apply XBRL into more in-depth and flexible auto-establishing and self-drilling reporting applications, since XBRL doesn't have a concrete access control mechanism to describe different Financial Information (FI) access permissions for different types of FI consumers. Intuitively speaking, the easier and freer accessing of FI information, the more transparent the system is. So in our work, we proposed a methodology for public financial disclosure in e-Government system by applying DRM (Digital Rights Management) idea, to support easy and self-discovery FI access for FI consumer, for improving government financial transparent under the semantic web environment; and discussing the transparency improvement we proposed by employing formal method analysis, which is a mathematic-based methodology in computer science and can verify if the desired property contained in the software system during system design stage.

In this paper, we first study the current researches on public financial reporting and transparency analysis around it; then introduce how to combine DRM mechanism with XBRL; and how to apply it in e-Government system design to ensure public financial transparency. At last, we conclude our work.

Keywords: e-Government, public financial reporting, xbrl, semantic web, digital right management

Moving Toward e-Government: The Status Quo and Prospective on Government Information Disclosure in China

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Abstract: The “Provisions of the People’s Republic of China on the Disclosure of Government Information” has been put into implementation in China since May 1, 2008. This is actually the first national systematic administrative policy on government information disclosure and is a milestone for the e-Government development in China. This paper, based on a brief review of the history of information disclosure of the Chinese government, describes the status quo of information disclosure of the Chinese government, which involves legislation development of government information disclosure in China, legal systems of government information disclosure and the public’s cognition towards government information disclosure. Secondly, it analyzes the problems in the information disclosure of the Chinese government. These problems involve the scope and extent, the legal coordination, the judicial remedies, the technical standards and the quality of information disclosure and so on. From the authors’ point of view, the lacking of commercial models and market mechanism in the government information disclosure is one of the significant reasons for low efficiency of government information disclosure. Finally, it comes up with some suggestions for the improvement of government information disclosure, which involve: (1) constituting “government information disclosure law”, to further improve government information disclosure system; (2) making an information confidentiality and privacy protection guidance; (3) clarifying judicial remedy approaches, perfecting the accountability system; (4) establishing principles to guarantee the quality of government information disclosure, including guidelines for information completeness, clear object, objectivity, and currency; (5) formulating and approving the technical standards for government information disclosure via Internet to facilitate the access to the government information network; (6) facilitating government information disclosure through market mechanism.

Keywords: e-Government, information disclosure, information openness, government information

An Exploration of e-Health in the Public Sector: The Australian Perspective

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Abstract: The Australian government has been actively exploiting information technology (IT) to enhance the provision of e-services to its citizens. Electronic-health (e-health) is one of the e-government services, it leverages on the use of the Internet, portals and mobile devices to provide, enhance and facilitate health care related services.

Eysenbach (2001, p.20) defines “e-health as an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies”. Due to the benefits of increased efficiency of health information delivery processes and accessibility from citizens of health care services, the Australian government is increasingly investing in the development of e-health services. Australian E-health services have been classified into three categories: (1) remote healthcare for the delivery of health services to citizens in remote areas of this vast country; (2) mobile healthcare service aimed at reaching people at any time and any where; (3) e-hospital, which utilises a medical record system that offers optimal efficiency in hospital management system to deliver services (Min, et al, 2007).

This paper will explore the development of e-health services at three levels of administration in Australia, the Federal, State and Local, using Layne and Lee’s (2001) model. It will extend the discussion by depicting the maturity of e-health services for each level of government’s administration in Australia. The paper aims to provide an overview of e-health as a component of e-government in Australia and its stages of development at all levels of administration to understand the duplications, useful links and bundled services.

Keywords: e-Government, information technology, e-health, public sector

Local e-Government Development Philosophy in China, New Zealand, Oman, and the United Kingdom

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Abstract: This paper compares and contrasts the results of identical studies carried out in late-2006/2007 to obtain a snapshot of (local) e-government development philosophy and practice; in which a survey was used to collect data from policymakers in 115 civil service organisations in four countries: China, New Zealand, Oman, and the United Kingdom. A high level of cross-country agreement was obtained for five key issues, which the authors argue are critical for successful e-government: *Accessibility, Security, Citizen Confidence, Privacy, and Efficiency*. Similarly, policymakers across all four countries tend to agree on a medium-high level of significance for the three key issues: *Legislation, IT workforce, and Trust*. Of medium significance are the six key issues: *Private Sector, Digital Divide, Cultural Obstacles, Minority Groups, Social Effects, and E-procurement* (and of low level significance are the two key issues: *Taxation and E-tailing*).

Although individual local authority websites were observed to vary significantly within and between countries, a strong similarity in policymaker development philosophy was evident. It appears that, rather than adopting a strategic approach to satisfying citizens, technology is being used merely because it is available, and in interactions with stakeholders that are highly directive. It seems that public sector organisations are continuing to favour e-government services that offer useful information to citizens, rather than providing collaborative service channels that even-handedly engage every stakeholder. In other words, online services are not generally perceived as an opportunity to improve democracy, or even to reduce expensive physical infrastructure, but rather they simply revitalise existing physical operations. In an era of (commercial) online social networks this surely has implications for citizen acceptance of future local government services.

It is anticipated that this paper will be of interest both to local government policymakers and to e-government researchers.

Keywords: e-Government, local government, international comparison, cultural issues

Centralised Government Telephone Information Services: A Policy Perspective

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Abstract: Centralised government information services such as 'single' or 'universal' number telephone services have been identified as a major component of many government reform agendas. Particularly in the context of recent trends in e-Government and the policy drive toward innovation and transformation of government structures and operations. However, to date there has been little research directed at investigating and understanding the diverse and changing policy motives driving the development of such services. The aim of this study is to offer a more complete understanding of the problems and opportunities that have driven and continue to drive diverse jurisdictions to adopt these types of centralised telephone services for government access, information provision, communication, and transactions. We present a review and analysis of the development of centralised and universal telephone services by a wide range of government jurisdictions with a view to establishing a preliminary policy context. The findings are synthesised to present a more holistic picture of policy motivations and to provide a framework for considering the development of such services.

The study findings indicate that the development of 'single' or 'universal' number services is the outcome of a mix of policy drivers which reflect: re-active problem solving; opportunistic evolution as a result of previous action(s), and innovation in technology and its application in service delivery. Further, the problems and opportunities identified have changed over time. These findings are considered in the context of key ideas about policy formation and theoretical, political and ideological issues represented by the oppositions, reactive or pro-active, centralising or decentralising, adaptive or entrepreneurial and, more recently, the perceived challenge by the network to its opposite, hierarchy. In this context imperatives for future research directions are proposed.

Keywords: Centralised Information Services, 311 Service, Call-Centres, e-Government, Policy

Behaviour Change, Citizen Engagement and Web 2.0: The Quest for Safer Roads

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Abstract: The paper reports research into civic engagement with road safety in Western Australia. It was initiated by the WA government's discussion paper titled 'Towards Zero – Getting There Together' outlining WA's next road safety strategy. This stressed the importance of engaging the general public in realising road safety objectives. Two aspects of the above were of interest to this research. First, seeking engagement of the public on what has become an emotional subject in the WA community (the road toll is dramatically increasing) and second, using Web 2.0 approaches to initiate engagement. In the first stage of the research, the author adopted the role of normative theorist (Coplin et al, 2002) by identifying the Transtheoretical Model of Change (TTM) to initiate behavioural change among the public towards engaging with the topic of road safety and Web 2.0, or so-called social software, to achieve online engagement. The second stage of research consisted of dialogical action (Martensson and Lee, 2004) between the author and the West Australian Office of Road Safety (ORS) for the purpose of developing the conceptual and methodological basis for implementing such engagement. Discussions indicated that a change in the ORS website site strategy, from a traditional e-government perspective to a citizen-centric, web 2.0 based perspective, was required. A noticeable change is the increased significance of data management, in addition to the current information management, for the reason that data is the new 'infoware', and the adoption of web 2.0 technology as the means to achieve citizen engagement. The completed research provides the basis to potentially change citizens' attitudes to road safety and to enhance the ability of ORS to effectively meet its mission of reducing deaths on WA roads.

Keywords: Road safety, behaviour change, citizen engagement, web 2.0

A Critical Evaluation of e-Government Model Implementation in Sri Lanka

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Abstract: For a successful e-government implementation, having a well-organized e-government model is a must for any country. It cannot be a model, which can be copied straight from a different country. It should significantly impact all sectors of the country's economy and its society and should be moulded according to the unique characteristics of the country. This study evaluated the e-government model, adopted by the ICT Agency of Sri Lanka (ICTA) with its *e-Sri Lanka Re-Engineering Government* programme. It evaluated its strengths and weaknesses by analysing factors that influence e-government projects currently being implemented. Based on this factor analysis, appropriate recommendations were proposed to enhance and strengthen the Sri Lankan e-government model by considering all social/cultural/economical/technical aspects pertaining to Sri Lanka.

Keywords: e-Government, e-Government implementation, e-Government strategy, e-Government influencing factors, e-Government in developing countries, e-Sri Lanka re-engineering government program

Readiness to G2B Electronic Interactions in Russian Regions: Results of Empirical Study

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Abstract: Development of business-government interaction based on ICT implementation (G2B services development) is one of the major strategic directions that can lead to significant economic benefits in Russia. The research goal of the paper is to compare readiness of business and government to e-interactions in Russia, their expectations and the way they assess G2B services benefits, their understanding of barriers and stimulus for e-services development. To obtain this aim questioning staffers of 320 companies from 8 Russian regions, and questioning public officials responsible for ICT development (from the same regions) were organized. The conducted research enables authors to conclude that the processes of ICT development in public and private sectors are disintegrated in Russia now, and clarify some reasons of this disintegration. But despite the existing gap in ICT development in business and government both sides are ready for e-interactions. Despite the revealed distinctions in terms of e-services priorities, barriers and benefits assessment, business reps and public officials agree upon public e-services importance. E-government leaders should focus on boosting further interest to e-services both in providers and consumers.

Keywords: e-Government, public e-services, G2B services, demand for G2B services, Russia, public e-services marketing

Assessing Performance of e-Government Services for Business Users

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Abstract: The purpose of this study is to develop a theoretical model for assessing performance of e-Government services for users, to verify it quantitatively, and to clarify the factors that increase user satisfaction of the services. The model was examined using data from a survey of business users regarding the online tax return processing services of the Japanese government. The following four policy implications for research and practice were derived as a result of the analysis. First, to increase user satisfaction, there is a need to focus on the perceptual and behavioral flow of the user. Second, e-Government services have a positive impact on user benefit following improvements to administration and services. Third, to increase user satisfaction, it is necessary to consider the burden of preparatory work for using the service and to set service levels at a rational standard that is acceptable to users. Fourth, as use of the service gets underway, there will be constant demand on government to improve the e-Government services because users will raise demands on the services. The findings and the limitations were also discussed.

Keywords: e-Government, performance assessment, quality of services, user satisfaction, Japan

Making e-Government Research Designs Visible: Reflexivity and Collaborative Research

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Abstract: Recent reviews of research in the field of e-government identify a number of limitations of current research practice and call for a reassessment of the research agenda. The overall quality of research outcomes has also been questioned leading to calls for greater openness about the research methods being used and the ways in which findings have been derived. Much e-government research is conducted in partnership with policy-makers and practitioners. In these situations even greater attention to e-government research designs is required. Such designs connect theory and practice, serving the policy needs of practitioners and contributing to advancing scholarship in the field of e-government. In an e-government context this requires us to generate relevant information that informs and shapes e-government policy and at the same time contributes to extending theorisations about the phenomenon of e-government. This raises questions about the ways we conduct research and the ways we engage with practitioners to advance understanding and support the production of actionable knowledge.

In this paper we argue that to make theoretical progress and to develop a history of ideas in the e-government field of inquiry requires researchers to be more reflexive about their own practice. This requires us as researchers to share experiences of collaborative interactions between researcher, policy makers and representatives of practice, reflect on the tensions, contradictions and constraints in the process of collaborative sense-making and ask questions about our experiences. Such reflections of research practice are largely unreported. Drawing on material from our collaborative research experiences with a national government agency responsible for e-government policy formulation we discuss the issues and challenges associated with conducting collaborative interactive research and present the wider implications for e-government research practice.

Keywords: e-Government research designs, reflexivity, interactive social science, e-procurement

Political Issues in ICT Implementation in Local Government

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Abstract: Political issues have been known to be one of the barriers to the successful implementation of government-based ICT projects. In the case of the local government administration of Selangor, Malaysia, political issues have been rated and ranked as one of the core problems, thus, hindering the successful rollout of e-Government services. This is evidenced in the qualitative analyses of interviews with the local government administrators. In this research, several sub-issues or patterns that emerged include leadership, individual support, internal and external politics, and bureaucracy. Therefore, the leaders of local government organizations should be more committed in ensuring that e-Governments services are delivered to the public in an effective and efficient manner to reap the return of investments.

Keywords: Political issues, ICT implementation, local government, leadership, bureaucracy

The Constitution and Governance of Time Through e-Government

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Abstract: Building on social scholars of time, this paper examines the contribution of e-Government to both the constitution of time and the governance of time. Drawing from both original and previously published research, this paper demonstrates the ways in which e-Government has contributed to time squeeze, the pace of change and our perception of time. The role of computer models in developing public policy is examined as a means with which to think about and govern the future. The implications of this for public policy formation and democracy will be outlined.

Keywords: Public policy, time, time intensification, computer modelling, the future

Digital Identities in e-Government; Issues and Perspectives on PKI-based Authentication Methods

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Abstract: This paper presents preliminary considerations and issues regarding the current and near-future identification solutions in e-Government settings. These considerations have been part of the definition phase of an applied research project in Luxembourg. First, a short introduction into the subject is given, and some current important European research projects are presented. Then, the state-of-the-art in Luxembourg and its three neighbouring countries is presented. Here, similar strategies can be found, but interoperable solutions still lack. Then, a short overview about related technology acceptance studies is given. Finally, we draw some first conclusions and illustrate further necessary work.

Keywords: Electronic signatures, digital identity, identification, identification management, technology acceptance

Benchmarking the Adoption of e-Government: A Comparative Study Between Australian City Councils and UK City Councils

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Abstract: City councils in Australia present unique challenges for the application of models of organizational change due to organisational structures that closely interface with political, business, and community environments. While city councils have developed unique organisational structures to deal with a diversity of stakeholder demands these same structures may at times impede organisational change agendas. This may be particularly evident where the introduction of advanced technology is used for the delivery of community-based services. The present study examines differences in the capabilities of city councils to develop and introduce eServices to their respective communities. Data presented illustrate the implementation profiles of eServices across a number of city councils in Australia and in the U.K. The analysis of these profiles indicates diversity in the capabilities of the city councils to provide eServices to their communities. It can be concluded that City councils in Australia are still embryonic in using advanced stages of e-Government in comparison with city councils in UK.

Keywords: Electronic services, city councils, public sector ict, e-Government adoption, e-Government in Australia

Modeling e-Election with Service Oriented Architecture (SOA) Approach

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Abstract: The main objective of this paper is to develop a framework to transfer the traditional enterprise to agile and flexible enterprises that can answer to the new dynamic and unpredictable business environment using Service Oriented Architecture (SOA).

For this purpose, good framework is crucial. The framework propped in this article is based on main ICT related models are diffused in e-government and SOA related area.

It tries to prepare a start point for developing SOA in the enterprise. The proposed model is a management tool that enables enterprise managers and policy makers to improve their services to citizen, other organizations (private and public) and their employees. It describes the different reference models for extracting services from processes. Then the model is described in nominated process area called election process area (Tehran Trade Organization). Therefore the election processes are improved and redesigned according OASIS's election markup language (EML) standard. E-election development roadmap is defined based on e-government development stages. Finally the reengineered election processes are modeled by SOA approach and the e-election portal is designed by services and components concepts.

Keywords: Electronic election (e-election), service oriented architecture (SOA), election markup language (EML), e-election development roadmap

Business Rules and Services Ontologies Development Environment

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Abstract: In the current globalized world, characterized by strong Web based interactions, relationships between people and governments are subject to fast changes. The increasing demand for new services conducts to the need to create services from scratch and by integrating disparate and heterogeneous legacy systems. The problem is that the form as most of the systems were implemented turns the change excessively slow and expensive. The main identified reasons that explain this problem are: (i) the difficulty in the individualization and separation of business rules from other aspects of the business and of the system, (ii) the rules mechanisms don't accept rules described in friendly languages for business analysts that could be automatically transformed to executable code. This paper proposes an integrated development environment (IDE) consisted by a set of tools to automate the modeling of business rules in the business people's terminology and integration of services. The IDE is based on a set of ontologies to manage metadata of services, vocabularies and business rules, guarantying the necessary support in terms of semantics, persistence and integrity for the manipulated artifacts.

Keywords: Service, business rule, ontology, e-government, web services, SOA

Exploring the Factors that affect e-Government Implementation in Jordan; A Longitudinal Analysis

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Abstract: The Information and Communication Technology (ICT), especially the Internet, revolution has dramatically changed how citizens can interact with their government. E-government, that is utilising ICT to change and/or improve the relationship between government, citizens, businesses and other government entities (World Bank 2007), has become a popular focus of government efforts in many developed countries and, more recently, in several developing countries. Jordan is one such developing country that has embarked on an e-government initiative (the programme was launched in the year 2000, and is expected to take several years to complete). Progress to-date comprises the provision of a few key services for citizens and the interconnection of a subset of government departments.

Existing empirical research on e-government has been undertaken principally within western developed countries. Of those studies that have focused on e-government implementation within developing countries, a few have identified one or more factors that play a part in the progress or otherwise of an e-government capability. Whilst useful as a combined list of possible factors to bear in mind, these studies have been based on “one-off” snapshot analyses of the situations found within the countries being studied. There is no indication as to whether the existence and predominance of such factors vary over time, and the nature of that variation.

This paper presents some preliminary results of a two year investigation to explore the factors that effect E-government implementation within Jordan. It starts with a brief overview of e-government in general, and provides some background information on Jordan in general and the ICT sector within Jordan in particular. Data from the first two cycles of fieldwork which were completed by the authors are presented, the analysis of which was based upon Strauss & Corbin’s variant of the Grounded Theory method (Strauss & Corbin 1990). Even from these preliminary results, it is clear that there are differing levels of dynamism and characteristics that the factors identified as effecting the e-government implementation within Jordan possess.

The value of this paper lies in the fact that it is one of only a handful of papers that focus on issues affecting e-government implementation specifically in Jordan. Furthermore, it uniquely views the influencing factors from a dynamic rather than static perspective.

Keywords: Jordan, e-Government, dynamic factors

Towards Legally Binding Online Elections in Germany

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Abstract: Our paper contributes to the interdisciplinary foundations for legally binding online elections in Germany. We focus on long-term retention of election documents as this is an issue of vital importance in terms of verifying the legitimacy of an election. With regard to conventional paper-based elections, specific documents have to be retained (for example the ballots or the voters' register) for later review in the case that an election contest is filed. Such retention obligations apply to online elections as well. However, this important issue has so far received only little attention in the research field of e-voting. We therefore address the following questions: Which legal obligations regarding long-term retention of election data have to be complied with? What must therefore be taken care of while carrying out an election and afterwards? In this respect, what can we learn from the case of paper-based elections regarding the implementation of online elections?

We approach the issue as follows: Based on an analysis of the existing legal framework for parliamentary as well as non-parliamentary elections in Germany, we derive the objectives of long-term retention for elections. Then we investigate how these objectives can be adapted to the e-voting scenario and derive concrete security requirements for online elections. We argue that meeting these requirements verifiably, even in the long term, will be a prerequisite for legally binding online elections. Hence, our work may help to establish e-voting as a true alternative to conventional paper-based elections.

Keywords: e-Voting, long-term retention, security requirements, legally binding online elections

Secure and Practical Online Elections via Voting Service Provider

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Abstract: Our paper deals with the question how remote e-voting can be put into practice in a secure and at the same time feasible way. We show that outsourcing the technical implementation of electronic elections to a Voting Service Provider (VSP) is one solution to this problem. Our concept can help election hosts to easily conduct electronic elections without having to take care of the necessary security precautions. Thus the election hosts can profit from the advantages of electronic elections with little effort. Thereby our concept may improve the cost-benefit balance of e-voting. Current remote e-voting schemes aim at a number of security objectives, e.g. anonymity, democracy or accuracy. However, this is not enough for providing secure online elections in practice. Beyond a secure e-voting protocol, there are many organizational and technical security requirements that have to be satisfied by the operational environment in which the scheme is implemented. For example, secure storage of key material, a Public Key Infrastructure or the secure delivery of voting equipment are often required but cannot be provided by the protocols themselves. We have investigated four state-of-the-art e-voting protocols in order to identify the organizational and technical requirements which these protocols need to be met in order to work correctly. Satisfying these requirements is a costly task which reduces the potential advantages of e-voting considerably. We introduce the concept of a VSP which carries out electronic elections as a trusted third party and is responsible for satisfying the organizational and technical requirements. We show which measures the VSP takes to meet these requirements. To establish trust in the VSP we propose a Common Criteria evaluation and a legal framework. Following this approach, we show that the VSP enables secure, cost-effective, and thus feasible online elections.

Keywords: e-Voting, voting service provider, security requirements, practicability, certification authority

Enhancement of the Performance of Administrative Systems and e-Government Services in Hungary in Correlation with EU Funding

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Abstract: This paper presents the actions related to the implementation of public administration services in Hungary reflecting on EU funding. At the beginning of the nineteen nineties a democratic transformation occurred in the Eastern Bloc countries. This paper shows the technical disadvantages whereby these countries had suffered at that time partly due to the COCOM list. Many changes in lifestyle that happened after the “system change” in these countries were attributed only to the political changes. In 2004 many of these countries joined the European Union. The Internet had just appeared in the early nineties and during this decade technology made dynamic progress. The former Eastern Block countries squared up to the demand of social and technological renewals. The Union hopes that with joining these countries at the economic level, policy’s and legal systems could strengthen with the assistance of EU funding. The paper is based on publicly available official documents and presents Hungarian approaches.

Keywords: e-Government development, European Union, Hungary, policy framework

E-mail Management Knowledge and Recordkeeping Behaviours of New Zealand Public Servants

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Abstract: Throughout the world, governments have realised that a proper audit trail of decision making and policy formulation is essential to the democratic process. These processes must be able to stand up to scrutiny in the form of media and opposition challenges. Effective recordkeeping is essential for balancing the executive, judicial and legislative functions of government. In an age of increasing "access to information" as part of the democratic process, good recordkeeping is needed to guarantee proper procedural processes and to insure all sectors of government against litigation. This means that provisions must be made for the justifiable retention as well as destruction of records, as well as clear accountability for who can make those decisions and under what circumstances.

These principles become more complicated as a result of the adoption and use of Information and Communication Technologies (ICTs) for public service provision and policy development. Managing the emerging electronic information environment according to record management legal and policy requirements is made even more complex when much of the decision making relating to the process is undertaken by individual public officials throughout all levels of organisations. How they identify and manage records of significant value to their organisation can have immediate as well as long-term implications for government and democracy.

This paper presents the research findings of a recent online survey examining how individual employees across the New Zealand Central Government identify and manage e-mail records of significant value to the business of government. A total of 562 survey responses from e-mail users employed at twenty eight New Zealand Public Service Departments were obtained and analysed. The results show that the majority of respondents perceive the use of e-mail as critical to their work. However, there is no standard or consistent approach among public servants in managing business-related e-mail messages. Moreover, there are substantial knowledge and information gaps among public servants with regard to how to manage business-related e-mails of significant value.

Keywords: Electronic mail; recordkeeping; New Zealand central government; e-mail management; public servant

Designing Virtual Services for Older People at Home - OLDES

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Abstract: The European population is ageing. Funding pressure, policy imperatives and apparent technological possibilities have created significant policy interest in the provision of more integrated care services to older people. However, the track record of attempts to develop such services, suggest many difficulties still have to be confronted. This paper reports on progress in a European Union funded project involving collaboration between local government, system developers, service providers and users to develop virtual health and social care services for older people. A key feature of the project is the use of a new 'co-production' approach to make 'users' central to the system design and development process.

Keywords: Older people, virtual services, co-production, user-centred design, service integration

e-Government Initiatives To Improve Service Delivery. An Evaluation of South Africa

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Abstract: South Africa is an emerging democracy, with characteristics of both a developed and developing country. Although the South African government has innovated in many ways to improve service delivery to its citizens, in the area of narrowing the 'digital divide', developed countries remain the leaders. Nevertheless, some of the initiatives involve state-of-the-art technology, which places South Africa (SA) amidst the most progressive countries in terms of e-Government initiatives. This paper provides an overview of e-Government initiatives undertaken by the South African government. The paper cites two cases of where e-Government initiatives are currently undertaken. Cape Online Strategy, which is an e-Government initiative by the provincial government of the Western Cape in SA, is an example of a global trend towards greater levels of interactivity between government and citizens. This initiative is an excellent example of how Web-based solutions can be used to deliver certain services to citizens. Another excellent example is an eJustice initiative undertaken by the Department of Justice. The initiative aims at promoting a more efficient system of Justice in SA. The purpose of the eJustice programme is to reform and modernize the administration and delivery of Justice through the re-engineering of work processes using enabling technologies. The paper also provides an evaluation of where e-Government currently stands in SA. In evaluating e-Government in SA, the paper also compares SA to North America and Canada. There are a number of factors that have contributed to the success of e-Government initiatives in SA. For example, it enjoys strong political support from government. However, there are also challenges that impact on the progress and success of e-Government, such as the persistent lack of infrastructure in rural and semi-rural areas in SA. The SA government would therefore need to make a more comprehensive effort, so that citizens can benefit from the circle of technological transformation for service delivery.

Keywords: e-Government, initiatives, successes, challenges, evaluation

The Role of Online Social Networking in Public Administration

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Abstract: Recent local government articles have tended to focus on the transition of traditional, bureaucratic organisations into their modern counterparts: responsive organisations that make extensive use of ICT and treat citizens as customers. Online social networks enabled by Web 2.0 technologies, which are increasingly being used in the commercial sector, might be expected to be the next catalyst for local government change; having the capability to readily identify specific citizen needs and able to add value to citizens' experiences via innovative services and improved transparency and accountability. However, to-date there is little evidence of such developments.

This paper details a programme of research that aims to develop and test an acceptance model for online social networks in local government. In particular it details the development of a theoretical acceptance model which identifies from the literature the determinants and the key steps in successful implementation of online social networks in the local government context; capturing the key issues, opportunities, challenges, and barriers/obstacles into an initial (local) e-government acceptance model that has three levels of aggregation (national-, organisation-, and management-levels). It is planned that this theoretical model will be refined into a first-cut framework using case studies involving local e-government policymakers and citizens in Oman and New Zealand, to yield a model that will be further tested with the aid of a live (prototype) e-government information system. It is anticipated that this study will be of interest both to local government policymakers and to e-government and social networking researchers.

Keywords: Online social networking, local e-Government, acceptance model, e-Government

An Evaluation of Information of quality of e-Government in Indonesia

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Abstract: One of the challenges in delivering e-Government services is to design the Web sites to make it easier for citizens to find desired information to maximize service quality, enhancing economy and cost efficiency, and improving citizens' participations in a democracy system. However, little work is found to evaluate e-government services in this sense. In addition, some e-Governments are currently struggling with huge information overloads, with new and emerging ICT capabilities, but few of them answer how to develop e-Government websites is better than others to facilitate citizens' information seeking in enhancing economy and cost efficiency, and improving citizens' participations in democracy. This paper aims to identify problems with the information quality and levels of the e-Government website. The paper discusses the development of e-Government in Indonesia as a case study to evaluate information quality of the e-Government in general. Further, the paper evaluates current status of the e-government in Indonesia based on the Word Bank's standard measurement in gauging the level of e-government. Finally, the paper conceptualizes a political economy framework for evaluating the development and progress level of the e-government in Indonesia with integrating socio-economic approaches for study of Indonesia's situation in maximizing service quality and enhancing economy and cost efficiency, and improving citizens in the democracy systems processes.

Keywords: e-Government, Indonesia, information quality, democracy, political-economy framework, web analyzer

Cultural Barriers in Preventing e-Government Implementation in Asia: Evidence from Japan and Vietnam

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Abstract : Nowadays, E-Government is widely regarded as an efficient tool to enhance internal operations (G2G) and to provide better delivery of public services (G2B, G2C). Although many governments have begun initiating e-government programs, little emphasis has been placed on addressing the cultural barriers that may hinder the effectiveness of such programs. Existing scholarly and professional works have pointed out that cultural barriers are among the obstacles to the adoption of many Information Communication Technology (ICT) projects. The purpose of this research is to identify and examine the types of cultural barriers that affect the implementation of e-government programs. Particularly, the impact of cultural barriers on G2G will be evaluated through an analysis of the modernization of the Vietnamese public administration project. The e-tax service in Japan is used as the case study to analyze cultural effects on G2B and G2C. Lessons learned from these studies can be applied in the e-government implementation of other countries in Asia which share similar cultural characteristics to Japan and Vietnam.

Keywords: e-Government, cultural barriers, public administration modernization, e-tax, Japan, Vietnam

e-Government Evolution in EU Local Governments: A Comparative Perspective

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Abstract: The adoption of web-based technologies has become a common element of the public administration modernisation programmes of Western democracies, as well as a global trend in public administrations. E-government seeks to improve government decisions, to enhance government accountability and transparency, to increase citizen trust in government, and to involve stakeholders in political decision making processes. Although a growing number of e-government studies are emerging, previous research has not analysed the evolution of EU local governments from a comparative perspective. Our paper carries out an empirical study on the advances and trends of e-government in transparency, openness and, hence, accountability in the EU local governments. The research sample is made up of the Web sites of the capital and the four biggest cities of 15 EU countries. We conducted a comprehensive content analysis of 75 local government Web sites using a 73-item evaluation questionnaire: twenty-five items belong to the transparency dimension, twenty-nine to the interactivity dimension and twelve and seven to the usability and website maturity dimensions, respectively. All Web sites were analysed during the second half of 2004 and, again, during the second half of 2007. The results show noticeable progress in the application of ICTs and increasing EU local government concern for bringing government closer to citizens and for giving an image of modernity and responsiveness, although few Web sites show clear signs of real openness to encourage citizen dialogue. The evolution of the e-government initiatives analysed shows that, at present, they are still overlapped with the public administration style of each country as an extension of traditional front offices with potential benefits in speed and accessibility. E-government has a huge potential to bring governments closer to citizens and to enhance public trust in governments. In order to increase the contribution of Web sites to promoting transparency, accountability and openness and to alter the bureaucratic relationship between government and citizens, governments and policy-makers will have to strengthen the interactivity of their Web sites in the near future.

Keywords: e-government, accountability, public sector transparency

How Effective is Digital Governance Worldwide?

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Abstract: There is a good deal of research on the efforts of governments across the globe to improve their governing capabilities by developing and implementing strategic information and communication technologies (ICTs). This research provides a comparative analysis of the practices of digital governance in large municipalities worldwide in 2005. The research is based on an evaluation of a sample (n=81) of city websites globally in terms of two dimensions: delivery of public services and digital democracy. The official websites of each city were evaluated in their native languages. Based on the analysis of the 81 cities, Seoul, New York, Shanghai, Hong Kong, and Sydney represent the cities with the most effective e-governance systems.

Keywords: Digital governance; digital democracy; e-Governance; citizen participation

e-Government Interoperability System Development: Issue of Labour Statistic Information Management in Thailand

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Abstract: Ministry of Labour (MOL) of Thailand has developed Ministry of Labour Operation Center (MLOC) as the center for gathering, analyzing and monitoring labour statistic information to assist the policy makers. MOL consists of four departments: department of employment, department of labour protection and welfare, department of skill development, and social security office. Those departments procreate labour information: employment, labour protection and welfare, skill development, and social security. In order to develop the MLOC, electronic links of the information systems from the four departments are required. Since those systems differ, XML schema standards have been developed for the system interoperability. Moreover, MOL has 75 branches called 'labour provincial office' located at 75 provinces in Thailand. The provincial officers also need the localized labour information to support their policy and decision making. Another information system called 'Provincial Labour Operation Center' (PLOC) has been developed. The accumulated information of MLOC is localized and is transferred electronically to the PLOC system. In order for the PLOC data transfer, the standardized integration architecture based on SOA and XML schema standards have been developed. Without the architecture and XML schema standards the inter-system electronic interoperability would not be possible. MLOC and PLOC systems have been developed in 2008. Though statistic data of labour is significant for planning and decision, some control is required in order to obtain a high quality and up-to-date data.

Keywords: Labour Market, TH e-GIF, e-Government, Interoperability, XML standard

Failed Revolution? Exploring e-Government Barriers in the Arab States

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Abstract: During the last decade, it was obvious on a global scale that a considerably large percentage of e-Government projects failed, despite the rosy promises of electronic government positively transforming the public sector. In what has been described as the post-New Public Management era, the actual causes of e-Government failures are still to be explored in more detail to improve our understanding and increase future successes. This paper discusses prevailing views of e-Government failures in earlier literature and explores the causes of such failures in the context of the Arab states. Based on a survey of senior e-Government practitioners in nine Arab states, our findings indicate that the underlying roots of failure in e-Government initiatives in the Arab countries (which we classify in nine main categories) are entwined with multifaceted social, cultural, organizational, political and technological factors. We argue that, despite their many similarities, e-Government initiatives in the Arab states would be better equipped for avoiding failure when a local 'right fit' is established between leadership commitment, sustainable cross-government vision, appropriate planning, rational business strategy, suitable regulatory framework, practical awareness campaigns and rigorous capacity building for the public administrators and society at large. It is improbable that a successful e-Government strategy in a specific environment would equally be successful in a different context; therefore e-Government projects will continue to have a relatively high failure probability until a local maturity level is reached. Based on our study findings, we argue that "replicable best practices" in a complex and developing field such as e-Government rarely exist in the regional context of the Arab countries. We conclude with a proposal to nurture a culture more tolerant to failure and risk-taking in the relatively new area of e-Government in the Arab states. Such culture should be accompanied with a home-grown e-Government risk management approach as well as effective mechanisms of knowledge management to locally extract relevant lessons from failures.

Keywords: e-Government, failure, barriers, Arab States

e-Government Service Discovery based on Citizens' Desires

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Abstract: Since a couple of years there is intensive research in the field of semantic technology and its use in the e-government domain. Most of these efforts concentrate on creating semantic descriptions for web services which would allow intelligent software agents to automatically locate and consume these services. You can also often read about citizens' desires that are the starting point of the enactment of semantic web services.

In several real life use-cases however, even expressing the citizen's desire already needs some (in-depth) knowledge about the service domain. Take the building permit process as an example. One short rule, expressed in the ontology, could be: If you want to erect a structure you need a building permit. Thus if you want to build a garage (which is a subtype of a structure), you need a building permit as well. Unfortunately building laws aren't that straight forward. In our use case the type of permission and therefore also the type of service you need depends on the size of the garage. If there will not be more than two cars in the garage than you just have to tell your building authority that you want the build this garage together with all the blue prints. However, if the garage is bigger you need to apply for a building permit. Information like this is typically found in some notes that accompany service descriptions. In this paper we present an approach to model such details as part of the e-government service ontology and how to use this model in an easy-to-use application called the "service navigator". This application, like an expert system, helps citizens to express their needs in all the necessary detail and identifies and accesses the necessary services (if any).

Keywords: e-Government, semantic web, ontologies, semantic reasoning, semantic e-government

Knowledge Management in Public Sector Organisations: A Suitable Platform for e-Government?

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Abstract: The practice of Knowledge Management (KM) in developing the Electronic Government (e-Government) initiatives will be a catalyst to Malaysia's national strategic policies to achieve the Knowledge based Economy at the dawn of the 21st century. This paper attempts to investigate the future implementation of KM as a strategic management tool in the reinventing process of Malaysia's public sector organisations for the e-Government paradigm. To achieve a meaningful comparative study, two public sector organisations of the Federal Government and Local Authorities are chosen for an in-depth study. This study uses a survey questionnaire, which is distributed to the top, senior and middle management government officers in various departments of a general administrative function of the Local Authorities and the specific accounting function of the Accountant General's Department in the Federal Government. Preliminary empirical findings of this cross-sectional survey research among government officers who are responsible for the strategic policies and management of public sector organisations will highlight the potential benefits and obstacles in using KM as a suitable platform in achieving the e-Government initiatives in Malaysia.

Keywords: Knowledge management, electronic government, KM implementation issues, comparative study of public sector organisations, Malaysia.

e-Government Role in the National Crisis Management

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Abstract: While technical concerns and the very facilitating nature of e-Government features seems to capture the attention, it seems that there are still steps to take for e-Government from being just an outer vitreous window for simplifying the government bureaucracy to become a real government with its full classic critical functions virtually implemented. One of these serious responsibilities of a government, as frequently iterated in the related literature, is that governments are expected to play the most important role in the national crisis and disaster management processes. Developing the e-Government capabilities to support these processes further to enliven the e-Government, can improve the overall functionality of the government for managing the crises and disasters with the abilities of the information and communication technology (ICT) based tools that can be embedded in the e-Government body. For the purpose of this article, the focus of discussion is to analyze the process of crisis and disaster management into the main phases according to the literature. The critical processes of each phase which are in fact the key factors of a successful crisis and disaster management, are then determined. The discussion continues to introduce suitable tools which should be included in the e-Government to support those critical processes. Main participants in the process (governmental agencies, international aid organizations, local non-governmental organizations (NGOs), donors and people) and the way they should be connected to the e-Government are also discussed. The article then tries to propose a new design model for e-Government concerning the role of e-Government in crisis and disaster management processes. This model integrates the necessary features and tools to support essential participants in crises and also proposes different channels for accessing these features. At the end some of the crucial challenges in applying the new model and the probable solutions are also discussed.

Keywords: e-Government, crisis management, disaster management

Change and Adaptation of Stakeholder Relationships in e-Governance

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Abstract: With increasing diffusion of e-government programs and services, interaction and interdependence between governments and plural stakeholders has become more intensive, which in turn has impacted public service delivery and public policy making. In e-governance, plural stakeholders include not only individual citizens but also other players from various sectors. In the trend of constructing e-governance, it is imperative to scrutinize relationships between government and its stakeholders in order to develop fine interactions and to adjust directions of e-government policies and service designs. Conceptual in nature, this paper thus seeks to identify stakeholder relationships in the era of e-governance. Through extensive literature review, it distinguishes e-governance from governance, categorizes stakeholders, and discusses argued and occurred changes and adaptation of governmental relationships with its stakeholders in e-governance.

Keywords: Governance; e-governance; e-democracy; stakeholder relationships; partnerships

An Exploratory Analysis of the On-line Dispute Resolution Mechanism

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Abstract: The 21st century is being characterized as the century of evolution for information technology, communication technology, electronic communications. Contemporary society does business through Internet, the forthcoming 'dispute resolution space' (Katsh and Rifkin 2001), people buy and sell regularly and even a large number of corporations have existence via an Internet address. This excitement for further improvement of dispute techniques, in relation to the exploitation of those technologies used for the management of online virtual communication led to the appearance of Online Dispute Resolution (ODR) mechanism. The choice for settlement of disputes through the modern mechanism provides an easement for interested parties to tackle their disputes from any place and at any time through e-mails, video conferencing and chatrooms, instead of being in courtrooms. The fact that the businesses are done on net causes fear, regarding the security of personal data and business secrets in combination with the lack of a framework that could have supported such scheme. For that reason, the role of Government is taken into consideration in the accreditation of service providers, as well as in the settlement of e-administrative disputes and the securing of e-transactions in general. The necessity for self-regulation, equality of digital divide and government's recommendation for ODR tools is discussed. The current paper is useful for its collection of references and bibliography, for its characterisations of the various approaches and for its insights into various approaches. The current research describes a study that is undertaken in order to identify and explore considerable notions, concepts and debates for moving towards the development of an international dispute resolution framework on-line and trustful mechanism internationally.

Keywords: e-Government, online dispute resolution, ODR, e-Resolution, e-Commerce

A Distributed Data Warehouse for e-Mail Data Retention

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Abstract: Retaining electronic communication data imposes novel technical and organisational challenges for internet service providers and authorities. Communication data must be stored securely in order to protect sensitive customer-related data and efficiently allowing to answer specific enquiries timely. We present distributed horizontally partitioned data warehouse architecture to retain e-mail data at each internet service provider separately. We elaborate a data warehouse schema storing e-mail data according to the European data retention directive and facilitating parameterised data retrieval. Finally, this work describes how our system supports communication network and communication behaviour analyses of e-mail data.

Keywords: Data retention, communication data, data warehouse

A Six-Level Model of SMS-based e-Government

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Abstract: SMS-based e-government is becoming popular in developed and developing countries as one of strategies to engage more citizens to use e-government services. However, there is no study predicting and explaining the acceptance of the SMS-based e-government. This paper is one of a series of three-papers investigating the opportunities and popularity of SMS-based e-government as a background of a current research project that endeavours to develop an SMS-based E-Government Acceptance Model (SEGAM).

This paper presents current advances in the popularity of SMS-based e-government among local authorities in developed and developing countries by investigating to what extent SMS-based e-government could deliver existing Internet-based e-government services, and more importantly, whether these services can fulfil the actual needs of e-government services users. It represents the current available SMS-based e-government services as a model with six levels: Listen, Notification, Pull-based Information, Communication, Transaction, and Integration levels. The model classifies the SMS-based e-government systems and the levels based on the complexity of the system and the benefits received by citizens; the higher the level the more complex the system and the more benefits received by citizens.

The comparisons of the SMS-based e-government model to the general Internet-based e-government models and the typical e-government use show SMS-based e-government is likely to deliver all service offerings of Internet-based e-government and the actual needs of e-government users except for downloading forms. The outcomes justify the popularity and the advance of SMS-based e-government services.

Keywords: SMS, e-Government, model, mobile e-government, six-level

The Future of Strategic e-Purchasing in e-Government – Using Data Base Analysis

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Abstract: While the implementation of information technology is usually viewed as a means of reducing transaction costs, in practice such implementation often increases transaction costs. e-Government bureaucratic hierarchies and their governance systems contribute to transaction costs. This research provides a futuristic e-business database model for e-Governments to achieve improved strategic e-purchasing using existing data and resources at lowest transaction cost.

This database model provides a systematic, logical and regular basis for the collection, collation and dissemination of strategic e-purchasing data. Selective access to this accurate and timely data will measurably improve e-procurement performance, accountability and administration in government purchasing. In the future, it will assist e-Governments to be more effective and efficient in resource allocation and spend, is transparent, and will encourage the development of trust, networks and social capital amongst employees and with suppliers.

The model has been successfully demonstrated through the establishment and analysis of an e-procurement data base with the Australian Department of Defence (DoD). The Australian DoD is a Federal Government Department with a FY 2007/8 spend of AU\$23.4bn on products (goods and services), their support and maintenance, from almost every industry sector, on a global basis.

Keywords: e-Procurement; e-Government; Transaction costs; data base; social capital; trust

Dialoguecircles – A Case Study in Successful Online Citizen Engagement

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Abstract: Most government attempts at online citizen and stakeholder engagement find their roots in the approaches of public opinion research. However, these approaches typically do not engage citizens in the process that ensures their participation is well informed. Commonly employed tools for citizen input, such as Web-based surveys or submission Web-forms are simplistic. In some cases, the tools are accompanied by lengthy, often difficult to understand, policy documents. While there have been some government attempts to provide processes that are more engaging, they have been few and far between. This paper will describe the Dialoguecircles methodology, a new approach to citizen and stakeholder engagement, created by Ascentum (www.ascentum.ca). By applying its online technology platform, the approach has been successfully employed for a number of e-government initiatives with respect to citizen and stakeholder engagement, both in Canada and internationally. Dialoguecircles came to being based on the belief that these techniques need to be brought online to help governments engage its citizens en-masse. Dialoguecircle's success can be attributed to the firm's process expertise with citizen and stakeholder engagement, as well as, expertise with Web-based technology. The paper will also focus on how the firm's process expertise has been embedded into its innovative technology platform to meet needs that are unique to citizen and stakeholder engagement. Finally, the paper will describe the successes and challenges of various Dialoguecircles based online engagement initiatives.

Keywords: Citizen and stakeholder engagement, dialogue and deliberation, online consultation, informed response, feedback, active participation

Innovation Characteristics Influencing IT Innovation Adoption: Lessons Learned from Finnish Early Childhood Education

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Abstract: Continuous technological development has created new ways of utilising IT in the public sector. This paper focuses on the adoption of IT innovations within early childhood education context in Finland. Information technology enables for example new working practices in day care, more effective communication between different early childhood education actors, and better quality education. Early childhood education has also faced the altered demand of its customers – that is families with children. The wide use of Internet and different kinds of electronic services has also increased the demand for e-services in early childhood education, and therefore early childhood education should be involved in the development of e-government, and in the transformation of municipalities' operational environment. In Finland, every child has a subjective right to receive public day care and the municipalities have the obligation to organise day care according to the demand. The concept early childhood education (ECE) refers to the care of children under compulsory school age (ages 0–6). Early childhood education in Finland is a well-developed system and much appreciated by the parents. Early childhood education is assured by public investments, and quality regulations are clear and strictly enforced.

Rogers' (1995) Diffusion of Innovations (DOI) theory is widely used in information systems research to study user adoption of new technologies. According to DOI theory, diffusion of innovation comprises of innovation, communication channel, time and social system. In this paper we are interested in the innovation characteristics which affect to the adoption of IT innovations in the early childhood education context. Innovation characteristics help to explain the rate of adoption of different innovations. According to innovation adoption literature, there are several innovation characteristics which affect to innovation adoption. This study concentrates on relative advantage, compatibility, complexity, trialability, observability, image and voluntariness of use. We chose five IT development projects within early childhood education field to the study because they represent the most advanced use of IT within Finnish day care. Because there is not much knowledge on IT innovations within early childhood education a qualitative case study seemed applicable for this study. The data for the study comes mainly from theme interviews, which were complemented with various different documents. Altogether eight early childhood education experts were interviewed.

Our research findings are quite consistent with the existing innovation adoption literature. According to our study the most significant predictor of innovation adoption is innovation's relative advantage. Other important innovation characteristics are compatibility, observability and voluntariness of use. Our findings can help day care experts and municipal decision-makers to understand and recognise the different factors that affect the diffusion and adoption of IT innovations within early childhood education. This way they could better prepare themselves to the possible problems in IT innovation implementation. Overall, the paper tries to provide examples and ideas for researchers and practitioners for developing better quality early childhood education e-government services.

Keywords: IT innovation adoption, diffusion of innovations, perceived innovation characteristics, early childhood education, Finland

"The Fast Eat the Slow": The Efficacy of e-Government Supply and Demand

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Abstract; In analysing the transition period from e- to t-government (for Transformational Government) in the UK this paper illuminates how and why this 'new vision' has emerged for harnessing technology to take forward local government reform, service provision and community regeneration. Discussing the findings from ongoing case studies in the cities of Manchester (UK) and Helsinki, the paper explores the relationship between the technologically deterministic local government modernisation agenda and the drive for the digital development of cities aiming to unlock wider economic, social and even environmental benefits. Here, the overriding catalyst appears to be the adoption of modern ICTs and infrastructure for competitive advantage.

Exploring relationships between the local authority and citizens the paper highlights two parallel discourses; the t-government agenda presents a top-down view which is contrasted against ethnographic research undertaken below the level of the town hall. Research at the neighbourhood level as explores the role of ICT in the 'place-shaping' role of local authorities, community engagement, the creation of social capital and what has been termed 'sustainable communities'.

This paper concludes by reflecting upon the network society paradigm and makes a moral and ethical case for local authorities to incentivise the take-up of ICT, while the transformational agenda supports a business case for increasing take-up particularly in areas of socio-economic deprivation. The evidence presented suggests however that the universal acceptance of the web channel as the most cost-effective method of service delivery should not be taken for granted. The roll-out of high-speed networks and local government corporate make-over could result in exacerbating the current socio-economic and digital divides. It is likely also to undermine the efficiency agenda, unless the perceived competitiveness arguments are considered in the context of the entire population, including the economically inactive who depend on public services most.

Keywords: Transformation, local government reform, regeneration, network society, government 2.0

Innovative Records Management Solutions: A Best Practice Exemplar from Local Government

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Abstract: An automated system to manage records has become a shopping list item for many organisations. In the public sector this trend has been largely driven by the introduction of laws, regulations and standards relating to records management and the provision of accurate corporate records augmented by the fact that records are increasingly 'born-digital' rather than paper-based. Despite their increasing popularity as solution providers, successful uptake of Electronic Document and Records Management Systems (EDRMS) is not yet widespread and research into their implementation is still limited. This paper supplements the small number of published EDRMS case studies with a detailed review of a recent implementation by a local government authority in South Australia. We then describe the recent use of Leximancer™ a software application, to identify ten key success factors from the EDRMS literature by Nguyen et al (2008) and conclude by illustrating how researchers can apply this instrument for additional quantitative analysis of their case study data.

Keywords: EDRMS implementation success factors, electronic records, change management, business process analysis, edrms, systems integration

Electronic Records Management: The Missing Player in the eGov Movement

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Abstract: Responding to technologies and citizens' demand for a more responsive government, governments worldwide are embarking on electronic government, or eGov in short, initiatives. Varying in implementation progress, the current eGov development, as typically showcased on government websites, has different manifestations such as online presence of governmental information, availableness of multi-channelled and integrated services, provision of new mechanisms for citizen participation in governance processes, or a combination of some or all of the above. As emerging and evolving as it is, conceptual perceptions on eGov have not reached consensus among researchers and practitioners. The principle of user-centric services delivery, however, has been widely accepted as currently the most representative characteristic of eGov. The eGov literature also generally recognizes the transformative nature of the eGov movement and the profound impact it generates on government internal structures and operations. As a result, eGov initiatives typically identify information and communication technology specialists, information management professionals, and commercial services providers as key stakeholders in implementation projects additional to the participating government agencies. In parallel, the disciplinary presence in eGov research consists typically of public administration, political science, economics, law, and information science. This paper argues, however, that eGov research and implementation should embrace one other discipline, that is, archival science, and one other profession, that is, records management, which are, without exaggeration, vital and indispensable to the true success of eGov. Archival science studies and develops both theories and methodologies with respect to records, and records management exercises controls over records' creation, use, maintenance, preservation, and access, with the perspective that records are instruments for, and evidence of, government conducts. A successful records management program therefore contributes not only to government operational effectiveness and efficiency but more critically to its demonstration of transparency and accountability. Illustrating the most recent developments in the field of electronic records management and their direct contact with the various eGov topics such as back office integration, information sharing across jurisdictions, privacy, and security, this paper calls for research on eGov development to include archival science as a contributing force and for eGov implementation projects to identify records management professionals as one of the major stakeholders.

Keywords: Electronic records; electronic records management; electronic government; electronic government implementation; electronic government research

Key Issues in e-Procurement Adoption: Toward New Public-Private Partnerships in Malaysia

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Abstract: In ensuring the success of e-Government implementation, the Malaysian Government has intensified its effort to improve access to ICT services and facilities in many segments of society. Based on an international benchmarking study, Malaysia's global e-Government readiness rank has significantly improved from 43rd out of 173 nations in 2003, to 34th among 182 nations in 2008 (United Nations 2008). A number of projects under the e-Government flagship are being engineered to foster the diffusion of e-Government in Malaysia. Recently, the Government has made efforts to facilitate the wider adoption of e-procurement between governments and private-sector suppliers, as well as between universities and private-sector suppliers. This effort is seen to assist the government to expedite the implementation of e-Government. The Government has introduced a national e-procurement system called e-Perolehan, which streamlines government procurement activities, and improves the quality of service it provides. Another government initiative is the National E-Tendering Imperative (NETi), which integrates and bridges every process and component of the entire construction tendering supply chain onto an electronic or digital medium. While the necessary ICT public policies, legislation, and guidelines for e-procurement have been introduced, there remain a number of key issues that need to be addressed to ensure wider adoption of new practices. This paper offers initial findings of the literature and policy review of the Malaysian Government's push for e-procurement adoption. This paper also identifies the key issues in promoting wide e-procurement adoption in Malaysia, in the context of developing new public-private partnerships (PPP). They are related to cost, infrastructure, skills, organisational capability and government enforcement policy.

Keywords: Malaysia, e-Procurement adoption, e-Commerce, ICT Public Policy, e-Government, public-private partnerships