

**Proceedings
of the 6th International
Conference on
e-Government**

**Cape Peninsula University
of Technology
Cape Town
South Africa
30 September – 1 October 2010**

Edited by
Ephias Ruhode
Cape Peninsula University of Technology
South Africa

Copyright The Authors, 2010. All Rights Reserved.

No reproduction, copy or transmission may be made without written permission from the individual authors.

Papers have been double-blind peer reviewed before final submission to the conference. Initially, paper abstracts were read and selected by the conference panel for submission as possible papers for the conference.

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

These Conference Proceedings have been submitted to the Thomson ISI for indexing.

Further copies of this book can be purchased from <http://academic-conferences.org/2-proceedings.htm>

ISBN: 978-1-906638-77-1 CD

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

Contents

Paper Title	Author(s)	Guide Page	Page No.
Preface		v	iii
Biographies of Conference Chairs, Programme Chair, Keynote Speaker and Mini-track Chairs		vi	iv
Biographies of contributing authors		viii	v
Critical Success Factors of e-Government: A Proposal Model for e-Government Implementation in Kingdom of Bahrain	<i>Reem Al-kaabi</i>	1	1
An End-to-End e-Election System Based on Multimodal Identification and Authentication	<i>Charles Ayo, Justine Daramola, Obi Gabriel and Adetokunbo Sofoluwe</i>	2	10
Integrating e-Government Services: A Stepwise Ontology-Based Methodology Framework	<i>Jean Vincent Fonou Dombeu and Magda Huisman</i>	3	18
Quality and Performance Evaluation of the Sri Lankan e-Government web Portal	<i>Hossein Jahankhani, Navalan Velautham, and Hamid Jahankhani</i>	4	30
Managing Innovations in Complex Welfare Service Systems	<i>Harri Jalonen and Pekka Juntunen</i>	4	38
Relevance of Ethics in e-Government: An Analysis of Developments in the WWW era	<i>Godwin Kaisara and Shaun Pather</i>	5	45
A Comprehensive Approach to Citizen Engagement in e-Democracy	<i>Tobias Kollmann and Ina Kayser</i>	6	54

Paper Title	Author(s)	Guide Page	Page No.
Servicing Participation: Preventing Duplication of e-Government Related Small Business Development Services	<i>Zoran Mitrovic</i>	7	63
Institutionalisation, Framing, and Diffusion: The Logic of Openness in eGovernment and Implementation Decisions (a Lesson for Developing Countries).	<i>Bongani Ngwenya, Sam Lubbe and Rembrandt Klopper</i>	7	74
Information Security as a Pre-requisite for e-Government Services – Developing the Organizations and the Information Systems	<i>Sofie Pilemalm, Kristoffer Lundholm, Jonas Hallberg, and Louise Yngström</i>	8	82
The Impact of ICT Literacy and Organizational e-Readiness :Factors on the Success of Information System Implementation in a State University Setting	<i>Marcelo Salazar</i>	9	91
Electronic Governance in the Maldives: Status, Issues and Plans	<i>Mohamed Shareef, Adegboyega Ojo and Tomasz Janowski</i>	10	100
Assessing Romania’s Readiness for a Large-Scale e-Government Public Policy	<i>Virgil Stoica and Andrei Ilas</i>	11	111
The People Inclusion in the Information Society: New e-Government Strategies Within the “i2010” Initiative in Europe	<i>George Stylios and Dimitris Christodoulakis</i>	12	121
Parliament’s Information Systems (IS) User Satisfaction Factors to Enhance its Democratic Functions	<i>Kevin Thompson and Corrie Uys</i>	13	130
IT Governance in the Network Society	<i>Johan Van Wamelen</i>	14	139

Paper Title	Author(s)	Guide Page	Page No.
The Use of e-Government to Create Public Value in Developing Countries: Some Conceptual Issues	<i>Khuong Vu</i>	14	147
Transformation and Governance in Higher Education: Students' Participation in Institutional Strategic Planning of the University	<i>Sheila Xakaza-Kumalo</i>	15	160
Homomorphic RSA Tallying and Its Randomization for e-Voting	<i>Okan Yücel and Nazife Baykal</i>	16	168
PHd Research Paper			
Factors Influencing Consumer (Citizen) Adoption of e-Government Services in Saudi Arabia	<i>Osama Almahroqi and Shahadat Khan</i>	19	178
Consolidating the Law of Supply and Demand in e-Government Implementation: Case of Botswana	<i>Kelvin Joseph Bwalya, Mbako Vaka, Tanya Du Plessis and Chris Rensleigh</i>	19	186
The e-Government Tools as Democracy Watchdogs: Public e-Procurement in the Czech Republic	<i>Jana Chvalková, Katarína Marková and Jiří Skuhrovec</i>	20	193
A Comparative Study of e-Civil Participation in Australia and South Korea: -The Case Study of GetUp! in Australia and the 2008 Candlelight Protest in South Korea-	<i>Hye-Jung Kang and Anni Dugdale</i>	21	204
Work In Progress			
Underground voices: Community articulation of needs through mobile technology in public participation	<i>Laban Bagui and Andy Bytheway</i>	25	214

Paper Title	Author(s)	Guide Page	Page No.
Exploring the Efficacy of Delivery in the Namibian Health Care System (NHCS)	<i>Meke Shivute and Katongo Lukwesa</i>	25	219
Non Academic paper			
e-Governance: Its Potential as a Catalyst for Political Unrest	<i>Leah Maina</i>	29	226
Presentation Only			
Acceptance Behaviour and Use of an Electronic tax Declaration System: Extending Current Factors Theories of Adoption	<i>Jyoti Devi Mahadeo and David Wastell</i>	33	

Preface

Welcome to the 6th International Conference on e-Government (ICEG 2010) hosted this year at the Cape Peninsula University of Technology in Cape Town, South Africa. The Conference Chair is Retha de la Harpe and the Programme Chair is Ephias Ruhode, both from the Cape Peninsula University of Technology.

The opening keynote address is given by Roderick Lim Banda, CIO Forum, South Africa and the second day of the conference will be opened by Nirvesh Sooful, EOH, South Africa.

ICEG enables individuals concerned with current research findings and business experiences from the wider community which is now involved in the management and study of e-Government to come together to share knowledge with peers interested in the same issues.

A key aim of the conference is about sharing ideas and meeting the people who hold them. The range of papers will ensure an interesting two days.

With an initial submission of 76 abstracts, after the double blind, peer review process there are 27 papers published in these Conference Proceedings. These papers represent research from Australia, Botswana, Czech Republic, Finland, Germany, Greece, Jordan, Macau, Malaysia, Namibia, The Netherlands, Nigeria, Phillipies, Romania, Singapore, South Africa, Sweden, Tanzania, Turkey, UK and Zimbabwe.

I hope that you have an enjoyable conference.

Ephias Ruhode,
Programme Chair
September 2010

Biographies of Conference Chairs, Programme Chairs and Keynote Speakers

Conference Chair



Dr Retha de la Harpe is currently responsible for the graduate and post graduate programmes of the IT Department in the Faculty Informatics and Design of Cape Peninsula University of Technology. She obtained her B.Sc. (Hons) in Informatics (Cum laude) and M.Sc. at Rand Afrikaans University. She obtained D.Tech (IT) qualification at the Cape Peninsula University of Technology during 2009. She has many years of IT teaching experience on all levels and was

actively involved in curriculum development for higher education on a National level. She also developed electronic and distance education content. Her main research interest is data quality implications in both business and healthcare contexts. She is involved in many research projects and is the South African coordinator of the International research network INDEHELA (Informatics development for health in Africa) and was a NRF (National Research Fund) grant holder for a period of four years. She is author and co-author of several research funding proposals, e.g. the SAFIPA (South Africa Finland Partnership). The first phase of this joint project between three South African Universities, community and healthcare stakeholders has been completed where the home-based healthcare needs of three poor communities were established. Many initiatives and linkages with other stakeholders (community, industry and other Africa countries) have evolved from these projects, e.g. the community empowerment project (Reconstructed living lab, Bridgetown civic association, etc.); MAMEE (maternal healthcare – South Africa, Mozambique and Finland). She was pivotal in the establishment of a Chief Information Officer (CIO) masters programme. Currently she is involved in several collaborative multi-disciplinary projects where participants interact in an incubation lab. She also supervises doctoral and master students at CPUT. She has been invited as key note speaker at international conferences and has published internationally.

Programme Chair

Ephias Ruhode is a lecturer in the Information Technology Department at the Cape Peninsula University of Technology (CPUT) in South Africa. He was educated to Master of Business Administration (MBA) Degree level in Zimbabwe. He also received further training in computer technology in Japan and India. Prior to joining CPUT, Ephias worked in



Zimbabwe in various capacities as Analyst Programmer, Systems Development Manager and General Manager e-Commerce. His research interest is in e-Business in general and e-Government applications in particular. In 2008, Ephias received CPUT's university research funding to carry out his research on e-Government in Zimbabwe.

Keynote Speakers

Roderick Lim Banda has practiced, lectured and consulted in software architecture and enterprise architecture. He is a co-founder and co-chair of the CIO Forum which has worked closely with the Centre for CIO Research in Africa (CenCRA). He has consulted in enterprise architecture, business architecture in local and national government initiatives and has been involved in various projects across local industries. He is currently working with ICT companies in the Western Cape to assist them in gaining access to markets such as South East Asia and develop the "Hollywood Reference Model" and the "Cape Software Factory" presented at the IEEE Cape Software Engineering Colloquium and the Cape IT Initiative (CITi).



Nirvesh Sooful is currently Director: Strategy, SAP Services for EOH. He is a former Chief Information Officer (CIO) of the City Of Cape Town. He was the architect and driver of the City's Smart City strategy, which the South African National Minister of Communications, Ivy Matsepe-Cassaburri, has called a "visionary transformation strategy," which positioned Cape Town "to become one of our most technologically advanced cities" and "a frontrunner in South Africa's National IT Strategy". While at the City of Cape Town, Nirvesh has implemented some of the largest ICT projects in South Africa, creating billions of Rands of value for the City, in addition to delivering value and access to opportunities for some of the poorest sectors of society. These have resulted in the city winning numerous national and international awards including the Gates Foundation Access to Learning Award and the 21st-Century Achievement Award from the Computerworld Honors program. Nirvesh is very active in initiatives aimed at utilising ICT for social and economic development, and driving transformation in all aspects of South African society. Nirvesh has spoken on numerous platforms in South Africa, on the African continent and internationally.

Mini Track Chairs



Dr Gabor Laszlo currently teaches at Obuda University as assistant professor. and also manages the Information Society Research and Education Group within the same institution. He received his PhD from the Budapest University of Technology and Economics. His research interests focus on open source software and its applications in the public sector. He has background in both economics and technology. As a co-author he has participated in

writing publications of working progress booklets for the Hungarian Information Society Strategy and he also wrote a position paper on strategy-planning document for the National Open Source Strategy in Hungary as a co-author.

Biographies of contributing authors (in alphabetical order)

Reem AL-Kaabi completed a BSc in computer science at University of Bahrain before pursuing an MSc in Internet System Development at Portsmouth University. She studied PHD in Management Information System (MIS) at Arab Academy for Banking and Financial Sciences (AABFS), Amman, Jordan. Her dissertation focuses on the effort of Critical Success Factors (CSFs) in e-Government implementation.

Osama Almahroqi is a director of SilkyNet Co in Saudi Arabia, Business Consultant for Ajjad Co, BestFab, Shinning Star, Ashgill Australia and Parisian Co. Currently a PhD candidate at the school of business Information technology and logistics in RMIT University. Has a master degree in International Business from Latrobe University Australia and double bachelor degree of Marketing and International Trade from Victoria University of Technology Australia. Areas of research are e-Commerce, e-Policy, e-Government and e-Learning.

Charles Ayo is an Associate Professor of Computer Science and Management Information System, and the Director, Academic Planning Unit of Covenant University, Ota, Nigeria. His research interests include: Mobile Computing, Internet Programming, e-Business and government. He is a member of a number national and international Professional bodies and Review Committees.

Laban Bagui: Research Fellow at Cape Peninsula University of Technology. His research interests are in ICT4D, S&CI and eParticipation. Originated from Cameroon, he obtained a Bachelor of technology in Internet and networking

from Douala University Institute of Technology (IUT-Cameroon) and in IT Management from CPUT. Worked for various industries, ISP, broadcasting and mobile software. He is member of the GAID and CIO Forum in SA.

Kelvin Joseph Bwalya is currently a lecturer at the University of Botswana. He holds a Bachelors of Science and Technology in Electrical Engineering from Russia and a Masters in Computer Science from Korea and currently PhD candidate at University of Johannesburg. His research interests are Information Systems, ICT4D, e-Government, Software development and database systems design.

Jana Chvalkovská has a Master degree and PhDr. title in Finance from the Institute of Economic Studies, Charles University in Prague, where she is currently engaged as research assistant working on her dissertation on theory of regulation. She studied in Austria, Virginia (USA) and in Peru.

Jean-Vincent Fonou Dombou is a PhD candidate in the School of Computer, Statistic and Mathematical Sciences at the North-West University. He Holds an MSc. in Computer Sciences at the University of Kwazulu-Natal, BSc. Honour's and BSc. in Computer Sciences at the University of Yaoundé I. He is currently a lecturer at Vaal University of Technology.

Hossein Jahankhani, MSc, PhD, CPhys, MInstP, FHEA obtained his PhD and MSc from University of London, UK. Currently a Senior Lecturer at University of East London in Computing and Secure System & Software Development. He has about 45 publications in various Journals, Conference proceedings and written several books and extensive reports to various government and private research establishments. Current research, is focused on the e-Learning, e-Government and Security where has supervised several PhD students.

Harri Jalonen is Principal Lecturer at the Department of Business Administration, Turku University of Applied Sciences, Finland. Harri Jalonen has long-term research experience dealing with the knowledge and innovation management issues in different organizational contexts. He has lectured in several countries abroad and published numerous scientific articles. Currently, he is researching complex welfare service systems.

Godwin Kaisara is a researcher/lecturer at Walter Sisulu University. His research interests span web-site evaluation, ethics, and accessibility of e-government. He is a team member of a National Research Foundation project on Information Systems evaluation, and was a co-leader of the sub-project on e-government evaluation. Godwin holds a Masters Degree in Business Information Systems.

Hye-jung Kang is a Ph.D candidate in the Faculty of Business and Government at University of Canberra. She is basically interested in effects of the information communication technologies (ICTs) in political arena, especially citizens' participation in political decision-making process. Her Ph.D research is centred on different practices of e-democracy in Australia and South Korea.

Ina Kayser is currently a Ph.D. student at the University of Duisburg-Essen, Germany. She received her diploma in business information systems from the University of Duisburg-Essen, Germany in 2007. Moreover, she holds a Master's degree in International Studies from the University of Sydney, Australia. Her research interests include e-government participation; trust in e-Government systems, and knowledge management in e-government.

Leah Maina is the Manager: Legal and Research at Pygma Consulting in which capacity she is responsible for the co-ordination of the firm's research and works closely with the regulatory and policy team. She holds an LLB (Hons) Law degree from the University of Kent at Canterbury and an MA from the University of Manchester.

Zoran Mitrovic's career includes both corporate and academic experience. His corporate research interest lies in the Sustainability information systems (based on the concepts of Triple bottom line and Green computing) as well as the delivering business benefits from IT investment. The large part of his research interest also lies in the broad fields of ICT for Development (ICT4D) and Green Knowledge Society.

Bongani Ngwenya. Lecturer; MBA programme director and Masters thesis supervisor at Solusi University, in Zimbabwe. Has twenty-seven years of work experience, both in the public and private sector. Currently studying PhD in Business Management, with North West University in South Africa.

Sofie Pilemalm holds a Ph. D. and an Associate Professorship in Informatics. She is Deputy Research Director at the Swedish Defence Research Agency, where she develops command and control and crisis management systems, for military and civil use. Her research interests embrace user-centred design, method development, requirements engineering and IT-security.

Marcelo Salazar, D.M. - a licensed mechanical engineer with advanced degrees in management (Master in Management & Doctor in Management). He is currently the Chancellor of the Mindanao State University-Iligan Institute of Technology located in Iligan City, Philippines, where he has been serving since 1973 in various capacities, but primarily as a faculty member and

administrator. He serves either as resource person, facilitator, or consultant for various nationally- and internationally- funded projects.

Mohamed Shareef is a Researcher at the Center for Electronic Governance at UNU-IIST, Macao. He is on leave from his job as Deputy Director General of the National Centre for Information Technology, Maldives and has been involved in the development of e-Government in Maldives since 2003. His research focuses on e-Governance in the developing world.

Meke Shivute is currently working as a lecturer at the Polytechnic of Namibia in the Business Computing department. Research interests are : Medical informatics-health and Health information systems. Working as an academic has improved my research skills.

Virgil Stoica, Ph.D. Head of Political Science Department – Alexandru Ioan Cuza University of Iasi, Faculty of Philosophy, Social and Political Sciences, since October 2007; Courses: Public Policy, Public Administration, and Political Science Research Methods; Scientific research fields: public policies, e-Government, local government, and political elites.

George Stylios obtained the Physics degree from Aristotle University of Thessaloniki, Greece, M.Sc. Information Systems and Technology, at City University, London, since 2007 is a Ph.D student at Dept. of Computer Engineering & Informatics. University of Patras He is a professor of Applied science at Information Technology Applications in Management and Economics TEI of Ionian Islands, Greece. His research interests include E-government, Data Mining, Web Mining, Digital citizen, WEB Log analysis and methodologies

Kevin Thompson has served as a party political researcher within the South African parliament since 1994. His areas of interest include policy analysis, the parliamentary process, and in particular, portfolio committee sector. A highlight of my political research career was to be involved in the constitution development process.

Johan van Wamelen is working as partner and management consultant at a large consultancy firm in the Netherlands. He also is appointed as director of the Center for Public Innovation at the Erasmus University Rotterdam. Before he was working as director information management and organisation within the Ministry of Housing, Spatial Planning and the Environment.

Khuong Vu is Assistant Professor, Lee Kuan Yew School of Public Policy (National University of Singapore). Research interests: productivity, competitiveness, information technology, e-Government. Education: BA in Mathematics (Hanoi National University); MBA and PhD (Harvard University).

Editorial board member: Journal of East Asian Policy. Publication: Scandinavian Journal of Economics, German Economic Review.

Sheila Xakaza-Kumalo is employed as an Educational Technologist for Center for e-Learning at Cape Peninsula university of Technology (CPUT). Half of her life is enriched with Basic Education as well as Higher Education teaching and lecturing experience. She is an aspiring young researcher with interest in education and e-Learning. She obtained Master's degree (M Ed) Computer Integrated education at Pretoria University. She is currently pursuing D Tech degree at Cape Peninsula university of Technology.

Okan Yücel (B.Sc.: 1998, Materials Engineering, M.Sc.: 2002, Information Systems; Middle East Technical University) currently studies for his Ph.D. on e-voting at the Information Systems Department of METU Informatics Institute. After working as technical engineer and manager in the field of network security, he co-founded the "Barikat Internet Security Company" in 2008.

Critical Success Factors of e-Government: A proposal model for e-Government implementation in Kingdom of Bahrain

Reem Al-kaabi

Ministry of Defense, Kingdom of Bahrain

Abstract : Technology has penetrated all aspects of human life. No domain remains unaffected by new technology, be it the social, economic, or political spheres of human activity. Many sectors are now completely computerized, from international business, to the everyday lives and affairs of citizens and governments. As such modern technology in general, the Internet and electronic applications in particular, represent the future of communication, business, and social organization for people and nations. Many countries have tried to implement electronic applications in order to facilitate daily work. Through this electronic government (E-government) emerged. Regardless of how advanced a particular country may be in terms of Information and Communication Technology (ICT) infrastructure however, many critical factors are involved in the implementation of e-government. This research study reviews Critical Success Factors (CSFs) from different perspectives. The reviewed CSFs are obtained from literature and our own experiences. Furthermore, this study aims to investigate most CSFs associated with implementing e-government projects, concentrating on both technical and non-technical factors. It will provide a CSFs model for an e-government program in the Kingdom of Bahrain. In addition, it will list the common factors between the global model and the Bahrain model. This study was completed through a number of questionnaires and interviews that will cover most CSFs.

Keywords: e-Government Implementation, Critical Success Factors (CSFs), Kingdom of Bahrain, e-Government model, technical factors, governing factors, organization factors

An End-to-End e-Election System Based on Multimodal Identification and Authentication

Charles Ayo¹, Justine Daramola¹, Obi Gabriel² and Adetokunbo Sofoluwe³

¹**Department of Computer and Information Sciences, College of Science and Technology, Covenant University, Ota, Ogun State, Nigeria**

²**International Business Systems (NIG) Ltd, Alagomeji, Yaba, Lagos, Nigeria**

³**Department of Computer Science, University of Lagos, Lagos, Nigeria**

Abstract: The spate and intensity of controversies and irregularities that usually trail the conduct of elections in most developing nations of the world are national albatrosses that must be removed, as they clog the wheel of true development in any nation. Concerted efforts were made through the introduction of e-Voting as a panacea for eliminating these development-inhibiting influences and achieving reliable democratic governance, but without much success. In any case, e-voting is just one of the components of an electoral system, and adopting a holistic approach to the development of an e-election system, appears imperative for an endearing solution to the debilitating pre-, contemporaneous and post- election events. In the particular case of the Federal Republic of Nigeria, the challenges of the electoral system were observed at four (4) major phases: registration of voters, political parties and candidates, and the security of election data; voting (voter identification and authentication, and ballot casting); ballot tallying; and the transmission of votes from the polling booth to the various collation centres. This paper presents an end-to-end e-Election system, covering the aforementioned areas with adequate security measures based on a multimodal identification and authentication system, and cryptography.

Keywords: e-Election, e-Voting, e-Registration, e-Counting, e-Transmission, authentication, and cryptography

Integrating e-Government Services: A Stepwise Ontology-Based Methodology Framework

Jean Vincent Fonou Dombou^{1, 2} and Magda Huisman²

¹Department of Software Studies, Faculty of Applied and Computer Sciences, Vaal University of Technology, Vanderbijlpark, South Africa

²School of Computer, Statistical and Mathematical Sciences, Faculty of Natural Sciences, North-West University, South Africa

Abstract: A number of maturity models have been proposed as methodology approaches for e-government development. Almost all these maturity models suggest the integration of e-government services at advanced stages of e-government development, to build a single point of access to electronic public services. However, existing maturity models lack design guidelines throughout their stages, with regard to e-government services integration, maintenance, and interoperability. In view of the complexity of e-government services, this study proposes a stepwise ontology-based methodology framework which adds design guidelines at different stages of the United Nation's five stage e-government maturity model. The United Nation's maturity model stages are captured in three phases of e-government application development namely: scope definition, services identification and categorization, and web services development. Firstly, a clear definition of the scope of each e-government project is to be defined. Thereafter, key government services involved should be identified and categorized. Lastly, web services should be designed, enhanced and integrated. Specialized ontologies should be constructed at each phase to capture the structures and the semantic of the e-government system's web features. Although the study has mainly focused on the United Nation's maturity model, the holistic nature of the framework makes its alignment to other maturity models easier. The main contribution of the study is the alignment of ontology modeling activities at various stages of e-government maturity models; thereby, providing e-government project teams with design guidelines at various stages of e-government growth and ensuring a feasible integration, maintenance, and interoperability of e-government services.

Keywords: Maturity models, e-Government, ontology, services integration, methodology framework

Quality and Performance Evaluation of the Sri Lankan e-Government web portal

Hossein Jahankhani, Navalan Velautham, and Hamid Jahankhani
University of East London, London UK

Abstract: This study was conducted to evaluate the quality and performance of the official e-Government web portal of Sri Lanka. For this purpose some well recognized and generally accepted evaluation tools and frameworks were used. Web site evaluation framework of Panopoulou *et al.*, (2008) was utilised to evaluate quality and performance of official government web portal of Sri Lanka. The evaluation shows evidently that government used web portal mainly for promotional and information dissemination purpose.

Keywords: e-Government, information communication technology, web portal

Managing Innovations in Complex Welfare Service Systems

Harri Jalonen¹ and Pekka Juntunen²

¹**Turku University of Applied Sciences, Loimaa, Finland**

²**University of Lapland, Rovaniemi, Finland**

Abstract: A growing number of welfare services are being provided through co-operation between the public and private sectors. The attractiveness of the co-operation is the result of a logic that argues that increased and diversified demand for welfare services can be met by combining the complementary and substitutive capabilities possessed by different organisations. However, while co-operation may increase the innovation potential in welfare services, it should be noted that co-operation also creates complicated organisational interlacing, which, in turn, may lead to a situation where this innovation potential remains unrealised. Adapting complexity theories, this paper presents a framework that provides a new perspective on innovation management in welfare services. Rather than focusing on administrative structures, the framework concentrates on the interaction processes within the welfare service system and between the welfare system and the surrounding environment. The framework consists of four dimensions: (i) creating trust, (ii) increasing communication responsiveness, (iii) utilising connectivity and interdependencies, and (iv) pursuing diversity. This paper concludes that the interaction processes have an unknown potential that can be translated into a resource for improving innovation performance in welfare services.

Keywords: Innovation management, complexity theory

Relevance of Ethics in e-Government: An Analysis of Developments in the WWW era

Godwin Kaisara¹ and Shaun Pather²

¹Department of Office Management and Technology, Faculty of Business, Management Sciences and Law, Walter Sisulu University, Mthatha, South Africa

²Faculty of Informatics and Design, Cape Peninsula University of Technology, Cape Town, South Africa

Abstract: As e-government adoption becomes widespread, governments face a myriad of challenges which are fait-accomplis when technology is introduced into organisational processes. Amongst these challenges governments are faced with ethical dilemmas associated with the use of ICTs to provide services to its citizens. Hence questions on what constitutes ethical or unethical actions are still less understood in e-government. Ethical issues in the context of business information systems have been widely investigated for some time. With the advent of e-commerce several studies have focused on ethical concerns in the online business to business (B2B) and business to consumer (B2C) contexts. Issues such as privacy, security, spamming, and the rights of e-customers have inter-alia, been highlighted. Due to the fundamental differences in the objectives of e-commerce and e-government, ethical dilemmas in respect of the latter are potentially different. A review of the literature indicates that e-government ethics have not been widely studied. This paper therefore examines the nature of ethics in e-government with a focus on government to citizen interactions. This paper adds to e-government discourse as it provides an analysis of ethics in the public sector and proceeds to examine these traditional views of ethics in the context of e-government. A comparative analysis of ethical dilemmas is made between e-commerce and e-government. Subsequently the ethical challenges which face e-government planners are highlighted. We identify culture and issues related to inclusivity as important factors in the formulation e-government ethical frameworks. Additionally the concept of trust is found to consist of different dimensions in an e-government context. Lastly we examine the implications of these for e-government in South Africa. Directions for e-government planners in South Africa who wish to develop new ethical frameworks are suggested, as well as enforcement strategies.

Keywords: Ethics, e-Government, public sector, framework development, information and communication technologies

A Comprehensive Approach to Citizen Engagement in e-Democracy

Tobias Kollmann and Ina Kayser

University of Duisburg-Essen, Essen, Germany

Abstract: This research aims at developing a comprehensive conceptual framework for citizen engagement in e-democracy and at empirically testing it using the example of German university students. Recently, a lot of valuable research was conducted on the question what makes citizens participate in e-government (e.g., Al-Shafi et al. 2009; Carter and Bélanger 2005; Yao and Murphy 2007), which comprises e-administration and e-democracy. However, as Carter (2006) demands in her concluding remarks of her seminal work, a more inclusive approach to e-democracy is required, involving the integration of political participation and Information Systems (IS) acceptance research. Therefore, our research focuses on e-participation and the question what factors take account of citizen engagement in innovative e-democracy processes such as politically motivated discussions, online consultations, and petitions. To allow for an all-encompassing consideration of factors influencing citizen engagement in e-democracy, we pursue a two-fold research strategy. From a review of established IS acceptance models, we deduce that the Unified Theory of Technology Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003) best suits our purpose. The UTAUT has been used before in the context of e-government (e.g., Wang and Shih 2009); however in the narrow context e-democracy, modifications to the UTAUT may become necessary since the decision to engage in democratic processes online is not only affected by the dimensions given by the UTAUT, but also by politically driven factors. Therefore to complement our research model, we conduct an in-depth review of well established political participation theories to deduce a fitting theory, which turns out to be the Civic Voluntarism Model (Verba et al. 1995). It provides a coherent approach, focusing on the role of resources, thus evading the rational choice discussion in political sciences. Following from our theoretical considerations, we propose an extended UTAUT and empirically validate factors taking account of citizen engagement in e-democracy using a student sample as an illustration. From this new comprehensive model of e-democracy participation, we deduce implications for both research and practice.

Keywords: e-Democracy; UTAUT; CVM; participation; resources

Servicing Participation: Preventing Duplication of e-Government Related Small Business Development Services

Zoran Mitrovic

Department of Information Systems, University of the Western Cape

Abstract: Small businesses are widely regarded by national and international bodies, including the South African government, as an “engine of economic growth”. However, much available evidence suggests that establishing a new small business in South Africa is difficult because of a lack of appropriate support. The project reported here set out to examine the actual support that has been available, and the viewpoints of both the support service providers and the intended beneficiaries – small business owners and managers. It was found that government-based services were predominant in the minds of small businesses and other involved parties, and that much of the interest in these services was based on use of the Internet, in the context of “e-Government”. It was further found that many small businesses complained that the support services offered by various government agencies were rather similar, indicating duplication of these services. It was also disclosed that the intended beneficiaries of these services (small businesses) were not consulted in regard of their developmental needs. Problems therefore centres around the lack of proper engagement between the parties involved, which is here named as a lack of “servicing participation”.

Keywords: Small business, development, e-Government, support services, servicing participation

Institutionalisation, Framing, and Diffusion: The Logic of Openness in eGovernment and Implementation Decisions (a Lesson for Developing Countries).

Bongani Ngwenya¹, Sam Lubbe¹ and Rembrandt Klopper²

¹NWU- Mafeking, South Africa

²UKZN, Durban South Africa

Abstract: In this research project the premise is that sharing data according to the guidelines for publishing open government data (Alonso *et al.* (2009)) ensures greater transparency, delivers more efficient public services and encourages greater public and commercial use and re-use of government information, through putting government data on the Web, is extended by examining the interplay between economic benefits of eGovernment and social considerations in adoption of eGovernment models decisions. Drawing

on organizational decision-making research, this research argue that, both early and late adopters respond to framing and interpreting adoption decision situations as opportunities versus threats. The argument for Openness in eGovernment is that the usage of software can influence digital inclusion, trust and privacy and possible strategies to eliminate the digital divide, to enhance transparency and accountability. However, this idea also shows the complexity and inter-connectivity of the openness domain. It is found that, while openness in eGovernment enhances transparency and accountability, and is not a new phenomenon in developed countries, such as the US, UK, and Europe which have already announced their Open Government Initiatives and data portals, the social, political and economic context of developing countries may not readily accommodate current models of Openness in eGovernment. In this research, it is found that motivations for the Openness in eGovernment to appear legitimate coexist with motivations to realize transparency and accountability. These findings prompt rethinking of the classic institutional, framing and diffusion model, to suggest Openness in eGovernment model that developing countries could adopt to suit their social and economic context.

Keywords: e-Government, transparency, accountability, institutionalization, diffusion

Information Security as a Pre-requisite for e-Government Services – Developing the Organizations and the Information Systems

Sofie Pilemalm¹, Kristoffer Lundholm¹, Jonas Hallberg¹ and Louise Yngström²

¹IT Infrastructure Unit, Division for Information Systems, Swedish Defence Research Agency, Linköping, Sweden

²The Department of Computer and Systems Sciences, Faculty of Social Sciences, Stockholm University, Kista, Sweden

Abstract: If government agencies shall provide secure e-government and public services, their own organizations need to be adapted in order to be able to adequately handle information security issues. An insufficient information security posture can negatively affect public trust in the agency and the willingness to use public services. Meanwhile, there is an increased understanding that information security has to be integrated with overall organizational, educational and information systems development. This study explores information security as part of organizational activities and systems development, in a Swedish government agency. A set of metrics is developed to support the agency's own information security assessment, and to be used

for “marketing” purposes; to acquire the trust and willingness of the public to use the agency services. The studied case is intended to serve as experience for other agencies seeking to work actively with information security issues, and to increase general awareness of the need to integrate information security in organization and system development activities. The study found that the agency’s view on information security is narrow and technology oriented. The communication between different organizational levels is limited and there is no common information security terminology. The integration of information security with organizational planning, activities, decision-making, and development; and with current information systems, is insufficient. This lack has consequences in terms of information leaks, misuse of personal data, inherent system errors, and insufficient backup of critical systems. The agency is recommended to take a more proactive information security stance, building strategies based on daily routines and including information, training, communication, and a clear definition of roles and responsibilities. A bottom-up approach where the operative personnel identify their information security problems and their solutions, and partake in the development of information systems, is suggested. Next, the metrics will be further developed and tested at the agency.

Keywords: Information security, public sector, organizational development, systems development, metrics

The Impact of ICT Literacy and Organizational e-Readiness Factors on the Success of Information System Implementation in a State University Setting

Marcelo Salazar

MSU-Iligan Institute of Technology, Iligan City, Philippines

Abstract: e-Governance is now an emerging and vital concern of governments and other organizations particularly in the context of the systems of operations among developing countries. Governance programs which are assisted by information technologies are used to ensure the effectiveness, efficiency, economy, and transparency of transactions with the identified customers. This study is one of the very few researches focusing on the evaluation of Information System (IS) success in the implementation of e-governance programs in a state university situated in Mindanao, Philippines. The study uses a modified DeLone and McLean’s IS success model as guide, with IS success as the dependent variable and ICT literacy and organizational e-readiness factors as the independent variables. To measure success, system quality, information quality, perceived usefulness and user satisfaction are the dimensions used. In this study, the focal e-governance initiative is the

e-School Management System (e-SMS) which is an integrated student records management system encompassing the activities from admission of students to financial report generation. The e-SMS, which is used mainly by faculty members, has contributed greatly to the promotion of good governance at MSU-Iligan Institute of Technology. The results of the study confirmed that the extent of ICT literacy is significantly and positively associated with organizational e-readiness. ICT literacy and information system (e-SMS) success have a significant and positive relationship. Furthermore, organizational e-readiness has a positive and significant effect on e-SMS success. These findings support earlier studies. The study further discloses that an IS success model patterned after the Delone & McLean IS Model can be easily adopted to a university setting. Likewise, the study pointed out that this model can be a major component of an e-governance implementation framework for a university. In addition, a strong rationale for considering organizational e-readiness as a strong antecedent to IS success is established. Lastly, the IS model explains the interrelationships among the selected four success dimensions.

Keywords: e-Governance, ICT Literacy, e-Readiness, information system success

Electronic Governance in the Maldives: Status, Issues and Plans

Mohamed Shareef, Adegboyega Ojo and Tomasz Janowski
Center for Electronic Governance at United Nations University –
International Institute for Software Technology, Macau SAR, China

Abstract: The concept of Electronic Governance is well accepted today as a key strategy for modernizing public administration, for improving public service delivery and for good governance. With rapid development of Information and Communication Technologies (ICT) and increasing awareness of the benefits of Electronic Governance, ICT-enabled transformation of governance processes is becoming part of national development strategies in the developing world. In particular, Electronic Governance programs are increasingly aligned with core development objectives, strategically utilized to tackle major development challenges like the United Nations Millennium Development Goals (MDGs). In this paper, we present the landscape of Electronic Governance in the Maldives. First, we present the development context of the nation. Next, we highlight the state of Electronic Governance in the country in terms of: regional and sub-regional performance, impact on the quality of governance including participation and

accountability, and the effectiveness of the government itself. Finally, we discuss policy and strategy frameworks for Electronic Governance in the Maldives, and propose a set of recommendations.

Keywords: Electronic governance, electronic government, Maldives, small island developing states

Assessing Romania's Readiness for a Large-Scale e-Government Public Policy

Virgil Stoica and Andrei Ilas
Alexandru Ioan Cuza University of Iasi, Romania

Abstract: In the fall of 2009, the newly installed Government promised to implement a large-scale e-government public policy in Romania. The goal of our paper is to assess if such a policy would have real chances of success. Starting with the 90's, many western governments showed their commitment to an informational society by providing through electronic means more information and various services in order to increase the transparency and the interaction with the public. Initial policy statements or proposed strategies, that aimed to establish objectives for this new sector, were soon followed by policies. Although most of governments' actions can be considered incremental, in the sense that they are only marginally modifying existing programs or practices, the e-government policies around the world are too new to fall within this model. Based on the relevant literature, we consider that five major factors contribute to the success of an e-government public policy: an educated citizenry; adequate technical infrastructures; offering e-services that citizens need; commitment from top government officials; and membership in international organizations supporting e-government development. In our case study, we argue that in Romania the five factors are rather weak and an extensive e-government public policy is not possible yet.

Keywords: e-government, incremental development, public policy

The People Inclusion in the Information Society: New eGovernment Strategies Within the “i2010” Initiative in Europe

George Stylios¹ and Dimitris Christodoulakis²

¹Department of Information Technology Applications in Management and Economics, TEI of Ionian Islands, Lefkada, Greece

²Computer Engineering and Informatics Department, University of Patras, Patras, Greece

Abstract: The European Union’s Lisbon strategy confirmed that the knowledge and innovation are the engines of sustainable growth. A common agreement has been reached, that it is essential to build a fully inclusive Information Society, based on the widespread use of information and communication technologies (ICTs) in public services, small and medium enterprises (SMEs) and households. The European Commission developed a new strategic framework, “i2010 – A European Information Society for growth and employment”, which promotes an open and competitive digital economy and emphasises ICTs as a driver of inclusion, eGovernment and quality of life.

“i2010” formulated three priorities for Europe’s Information Society and media policies:

- the completion of a Single European Information Space which promotes an open and competitive internal market for Information Society and media;
- strengthening Innovation and Investment in ICTs research to promote growth and more and better jobs;
- achieving an Inclusive European Information Society that promotes growth and jobs in a manner that is consistent with sustainable development and that prioritises better public services and quality of life.

As this year is the final point for the initiative “i2010”, the paper analyses some aspects of the implementation of the 3rd priority in Europe and in Greece on the background of its implementation in European Union. In addition the paper is presenting how this strategy affects and formulates new eGovernment strategies in the Member States and more specifically in Greece. e-Government is part of a wider Information Society strategy to enhance Greece’s competitiveness and improve quality of life. The availability of e-Government services, for citizens and enterprises, in this country is below the EU average, though it has grown substantially in recent years. Greece’s recent efforts have lead to a stable and relatively high e-Government usage among business, but the take up of e-Government services by citizens is very low and has not shown much improvement. The aim of this study is to assess the strategy’s targets, activities and directions

that were successfully fulfilled or not. Furthermore, we wish to pinpoint the causes and the reasons why certain parts were implemented correctly or not. Taking these conclusions in mind, in the future other countries that will apply similar strategies could avoid replication of the same mistakes that were observed during implementation of “i2010” in European countries and more specifically in Greece.

Keywords: Information Society, eInclusion, e-Government, e-Participation

Parliament’s Information Systems (IS) User Satisfaction Factors to Enhance its Democratic Functions

Kevin Thompson and Corrie Uys

Cape Peninsula of Technology, Cape Town

Abstract: User satisfaction is a distinguishing factor of a successful information system in an organisation. Institutions such as parliament, with particular focus on South African (SA) parliament, and its vision to be a responsive and people oriented institution, have the same need to appropriate information systems that offer user satisfaction. The use of information systems (IS) in parliament promises to enhance democratic parliamentary institutions, strengthen transparency and accountability in government. For example parliament can utilise IS to its advantage in order to be more responsive to the needs and aspirations of the people of South Africa. SA Parliament has adopted a number of IS initiatives, including parliament’s content management system (PCMS) aimed at supporting effectiveness of the institutional processes, as well as to facilitate parliament’s oversight functions. However, various studies suggest that institutions rather react to technology necessitated by contextual influence which the technology is situated in. In other words, the contemporary information and communication technologies (ICT), through organizational IS, is still not used effectively to support various parliamentary processes. The early evidence in this study suggests that IS user satisfaction factors can contribute to IS success. This paper reports a study in progress aimed at identifying the factors that influences user satisfaction in parliament’s information system. The main premise of the study is that parliament’s information systems in general, and the PCMS, in particular, can assist in achieving the parliament’s democratic objectives (political oversight, in particular), if used effectively. In this context, user satisfaction with information systems appears to be one of the key success factors. This paper concludes by suggesting the list of factors contributing to users’ satisfaction and the possible way to deal with these factors as success elements for SA parliament’s information systems.

Keywords: Parliament, parliamentary oversight, ICT, parliament’s content management system (PCMS), user satisfaction

IT governance in the network society

Johan van Wamelen

Center for Public Innovation, Erasmus University Rotterdam – Ordina Consulting, Nieuwegein, Netherlands

Abstract: As a result of the rise of the network society, information technology (IT) will be utilised in new fields of application and new techniques will be used. Against this background, the question can be posed as to how the governance of IT in the future must be organised and to what extent current steering instruments can be used to do this. In recent years, studies have been made to determine how the management of IT must be organised. However, these studies focused on past experience and took insufficient account of the changes that will occur in the future as a result of the rise of the network society. This framework is based on two developments that should be taken into account and, based on these developments, a set of constraints and principles are described to which steering instruments must comply. This framework is then used to examine to what extent a current steering instrument is suited to manage IT in the future. When this instrument is being plotted against the constraints described in the normative framework, it becomes clear that the scope in which the instrument is applied so far is different to the scope in which the instrument should be used in the future. Based on the principles described in the normative framework, some observations are made as to how the steering instrument could be used in another way. Finally, based on this analysis, a number of conclusions and recommendations are formulated for the development of steering instruments in the network society.

Keywords: IT governance, information management, e-Government

The Use of e-Government to Create Public Value in Developing Countries: Some Conceptual Issues

Khuong Vu

National University of Singapore, Singapore

Abstract. e-Government provides an unprecedented platform with great potentials for governments to create public value. The results of the 2010 United Nations survey on e-government, which included 192 nations around the world, revealed that most countries have made significant investments in e-government applications and a number of developing countries have outperformed some developed nations in this endeavor. In this vibrant dynamics, however, several critical questions with regard to a sound conceptual framework for investing in e-government applications in

developing countries remain challenging. What should be a good strategy for developing countries to develop e-government? Should efficiency or effectiveness be emphasized as the fundamental step? What should be the main concerns of investment in e-government: providing online delivery of public services or enhancing transparency, fairness, consistency, and decision making participation? This paper provides insights and examples that shed some light on these questions. The study indicates that an approach biased towards transactions and efficiency improvement is not sufficient. An approach that emphasizes effectiveness enhancement, which improves transparency, fairness, responsiveness, consistency, and credibility while reducing uncertainty and unpredictability, could have a more fundamental effect and generate higher returns on investment in e-government applications. The paper presents a simple model of decision-making under uncertainty to provide theoretical grounding for the claim and lays out several practical approaches to using e-government and advance government effectiveness.

Keywords: e-Government; efficiency; effectiveness; decision-making

Transformation and Governance in Higher Education: Students' Participation in Institutional Strategic Planning of the University

Sheila Xakaza-Kumalo

**Cape Peninsula University of Technology, Center for e-Learning, South
Africa**

Abstract: The most important processes in human communication, such as creation of mutual understanding or shared values and goals are hard to reproduce in the web environment. Asynchronous communication is very different from face-to-face communication. I examined the activities and the pattern of asynchronous interaction in an online forum. This paper aims to present the findings on effective usage of a learning management system "discussion tool" in soliciting the perceptions and opinions of staff and students across university campuses. The empirical study examined the extent of asynchronous interaction in an online discussion forum. The study employed both qualitative and quantitative approaches. Online survey supplemented by structured questionnaires was conducted to which 60% =420 of 700 Blackboard active participants responded. This was followed by interviews during the process. Over 700 messages were posted in the forum during a two month period. Results proved students as main stakeholders with most active participation. Evidence showed that Blackboard 9.0, normally used to facilitate teaching and learning, and not a regular social network, can

be a dynamic communication tool. The observation highlighted the obvious need for more such communication platforms to afford an online progressive discussion.

Keywords: Learning management system (LMS), asynchronous, governance, forum, transformation

Homomorphic RSA Tallying and Its Randomization for e-Voting

Okan Yücel and Nazife Baykal

METU Informatics Institute, Ankara, Turkey

Abstract: Contemporary e-voting schemes use either mix networks or homomorphic tallying to preserve the anonymity of votes. Homomorphic addition property of a public key encryption algorithm provides anonymity by allowing joint decryption of the vote sums at the tallying office; instead of separate decryption of each encrypted vote. Exponential ElGamal and Paillier algorithms are additively homomorphic that makes them suitable for homomorphic tallying. Alternatively, RSA and ElGamal algorithms are not additively homomorphic but they have the property of homomorphic multiplication, so that decryption of the product of encrypted messages yields the product of messages. In this work, we show that e-voting with multiplicative homomorphic RSA tallying is possible if the algorithm is properly randomized and each candidate is associated with a unique prime number on the electronic ballot. We explain how the unique prime factorization of the vote product can be employed to compute the individual vote counts and discuss the feasibility of such a system. The absence of random parameters in the RSA algorithm is a major disadvantage, especially within the context of e-voting, where each voter uses the public key of the tallying authority and the number of possible messages to be encrypted is equal to the limited number of candidates. Although in different applications, the RSA algorithm is randomized by adding random padding bits to the plaintext; this approach doesn't work for the proposed homomorphic tallying, since a randomization that would change the unique prime factorization in the vote product is not allowable. To solve this problem, we propose new randomizations for homomorphic RSA tallying. We comment on implementation details such as cancellation of the randomization load and size of the RSA modulus with respect to the voter set.

Keywords: Anonymity, electronic-voting, homomorphic tallying, multiplicative homomorphism, public key encryption, RSA randomization

PHd Research Papers

Factors Influencing Consumer (Citizen) Adoption of e-Government Services in Saudi Arabia

Osama Almahroqi and Shahadat Khan

School of BIT and Logistics, RMIT University, Melbourne, Australia

Abstract: This paper seeks to extend the scope of research on factors e-government acceptance in developing nations. Using a case study methodology involving interviews with multiple types of respondents such as Saudi residents who have never traveled abroad, Saudi residents living abroad, and Saudi repatriates, this research investigates personal, socio-cultural, transactional, and technological factors that contribute to acceptance of e-government technologies by Citizen. The results of the research will be interpreted within the methodological framework for adoption of e-commerce initiatives by Venkatesh and Davis (2000).

Keywords: e-Government, e-Commerce, e-Business, developing nations

Consolidating the Law of Supply and Demand in e-Government Implementation: Case of Botswana

Kelvin Joseph Bwalya¹, Mbako Vaka², Tanya Du Plessis* and Chris Rensleigh³

¹**Center for Information and Knowledge Management, University of Johannesburg, South Africa**

²**University of Botswana, Department of Library and Information Studies**

³**Center for Information and Knowledge Management, University of Johannesburg, South Africa**

Abstract: Botswana has achieved some important strides in as far as e-Government implementation is concerned especially at the policy level. Some initiatives are being put in place to encourage the proliferation of e-Government projects. These initiatives include putting in place a dedicated e-Government team mandated with the responsibility to encourage penetration of e-Government projects to the doorsteps of the people; putting in place appropriate information and communication technology (ICT) infrastructure such as the erection of a dedicated Trans-Kgalagadi radial fibre network; a government data network (GDN) which aims to seamlessly integrate all government line ministries and departments; subscription to regional submarine cable systems such as Eastern Africa Submarine Cable System (EASSy) and South Atlantic-3/West African Submarine Cable (SAT-3/WASC), and the putting in place of sound institutional, legal and regulatory

frameworks such as the establishment of the Botswana Telecommunications Authority, setting up of an e-Government task force, and so forth. These different interventions come with huge opportunity and financial costs. Under ideal circumstances, it is desired that such investments should correspondingly be met with appropriate demand for e-Government services from the general citizenry. Is this the case in Botswana? The famous phenomenon or law of supply and demand from the economics theory can be applied to implementation of e-Government projects. This short paper discusses the situation of supply and demand of e-Government in Botswana. This is done by presenting an empirical study that was done in the second biggest city of Botswana, Francistown, and surrounding areas. Ordinary or marginal individuals from all social strata are included in this study. The study also reviews some documentation on e-Government interventions that have been done in Botswana by the government and other co-operating partners. It can be inferred from the study presented in this paper that the supply side of e-Government services in Botswana conforms to acceptable levels. However, the demand side is not yet there or is still at an emerging stage.

Keywords: e-Government services, e-Participation, demand, supply, citizens, interventions

The e-Government Tools as Democracy Watchdogs: Public e-Procurement in the Czech Republic

Jana Chvalková, Katarína Marková and Jiří Skuhrovec
Institute of Economic Studies, Faculty of Social Sciences of Charles University in Prague, Czech Republic

Abstract: The objective of this paper is to analyze the potential of e-Government tools to enable the general public to oversee spending of public institutions. The paper illustrates the “watchdog” potential of reducing corruption by means of providing information to the public on the example of the Czech Public e-Procurement Information System (further called System). The System is an Internet portal, where public authorities announce their intention to purchase goods and services. Such announcements are monitored by private entities that can compete for the respective public contract. For our paper we used a web robot to collect data about public procurements from the System and utilized them for construction of an original Transparency Index, which rates institutions that award public contracts (so called contracting authorities). The composite Index is constructed as a weighted sum of ten various transparency indicators, computed separately for each contracting authority. This Index could serve as an efficient benchmark for continuous control and comparison of public

institutions in the area of public procurement and demonstrates how an e-Government tool can contribute to greater openness and accountability of these public institutions and to enhancement of the civic engagement in the control of governmental activities. The results of our research suggest that although the System is good step forward, its current structure does not enable the public to effectively exercise public control over procurements spending of contracting authorities, because of serious difficulties related to viewing (and extraction) of aggregate data. On the other hand, on example of our Transparency Index, we demonstrate that if the System allowed for easier access to data on public procurements, it would serve as an efficient tool of public control and a facilitate open government initiatives.

Keywords: Public procurement, transparency Index, efficient public control, open government, corruption

A Comparative Study of e-Civil Participation in Australia and South Korea: -The Case Study of GetUp! in Australia and the 2008 Candlelight Protest in South Korea-

Hye-Jung Kang and Dr. Anni Dugdale
University of Canberra, Canberra, Australia

Abstract: Political participation had been regarded as essential to the nature of democracy for a long time. The appearance of ICTs has facilitated citizens' political participation. However, regional specialized factors are emerging in e-civil participation in different countries. This research sought to explore and compare two well known practices of e-civil participation one from South Korea and the other from Australia. The Australian case is the GetUp! Action on Climate Change, and the Korean case is the 2008 candlelight protest against US beef imports. Both cases represent good e-civil participation models. However, GetUp! and the 2008 candlelight protest show different models of online civil participation by the public. The comparative approach between the two cases suggests a number of analytical levers or lenses that might be useful in future comparative studies.

Keywords: e-civil participation, e-democracy, ICTs, GetUp!, the 2008 candlelight protest against US beef imports

Work In Progress Papers

Underground Voices: Community Articulation of needs through mobile technology in public participation

Laban Bagui and Andy Bytheway

Faculty of Informatics and Design, Cape Peninsula University of Technology, Cape Town, South Africa

Abstract: Public participation in government has gain in popularity among democratic countries. It seems to be the way to go to get to a sort of New Jerusalem where everyone is happy. However in South Africa for instance, despite the implementation of best practices and despite the introduction of ICTs to support and enhance that process (e-participation), it seems that there is still a problem because people seem to prefer violent expressions to peaceful exchanges. In this paper, we look at the use of technology which potential seems has not been understood and realised, towards helping the improvement of the process. The focus is on the first step: “community articulation of needs” and the use of mobile technology (sms) in consultation for a by law to be passed. Frameworks and models (UTAUT, TEF, S&CI) will be used to asses that initiative use of technology and to determine what help or hinder the process from that perspective. The design is qualitative, inductive and interpretivist. The methodology comprehends literature review, semi-structured interviews and focus groups deliberations. As discussion and conclusion, the paper question if the whole problem of e-participation is not just a matter of context.

Keywords: Public participation, e-Participation, social capital, unified theory of acceptance and use of technology (UTAUT), technology enactment framework (FET), social and community informatics

Exploring the Efficacy of Delivery in the Namibian Health Care System (NHCS)

Meke Shivute and Katongo Lukwesa

School Of Information Technology, Polytechnic of Namibia, Windhoek, Namibia

Abstract: Understanding the healthcare system of a country that includes different components and processes is central to delivering effective healthcare services. Despite its importance, this is the one area many countries have failed to address effectively. This paper is work in progress and it seeks to examine the efficacy of delivery of the Namibian Healthcare System. The main aim of the study is to investigate the effectiveness and

efficiencies of delivery of the Namibian Health Care system (NHCS) by identifying components, describing the components and discuss how they function together. Components will be discussed in terms of information flow and inter-relations within the system. Inter-relationships will represent key aspects that are essential to policy development and implementation which in turn contribute to effective healthcare service delivery within the healthcare system.

The major focus of the study is to determine if indeed all the components of the systems are present and functioning as planned. The envisaged outcome of this study is to develop a model to depict the components of the NHCS. Furthermore, the components identified will then be checked against existing policies in order to check if they meet the benchmark in terms of expected achievements of such components. Existing policies will hence be used as a benchmark to control and facilitate interoperability within the NHCS and as an international, voluntary and consensus-based environment for standards setting. This study hence also seeks to review existing policies in terms of healthcare delivery in order to check if such policies are put in practice and also to identify key constraints in the delivery of healthcare services.

This study will inform policy makers in the development and implementation of e-government with special reference to Healthcare delivery. Further studies will look into sourcing IT-related solutions to address gaps in NHCS.

Keywords: e-Government, Namibia, healthcare delivery, efficacy, policies, services

Non Academic Paper

e-Governance: Its Potential as a Catalyst for Political Unrest

Leah Maina

Pygma Consulting, Johannesburg, South Africa

Abstract: Government agencies in both developed and developing countries are increasingly making use of Information Communication Technologies (ICT's) to improve their service offerings. The benefits of E-governance include making civic education and participation more widely available and accessible. Another benefit of E-governance is its potential to be a powerful and effective tool in the fight against corruption by increasing transparency and efficiency which ultimately results in the greater accountability of Government officials. The African continent has not been exempt from this ICT revolution. In order to take advantage of and benefit from E-governance, many African nations are increasingly making use of mobile telephony as the platform of choice for e-governance in favour of the internet. This is largely due to the infrastructural constraints faced by many economies in sub-Saharan Africa. Despite the numerous benefits of E-governance particularly with respect to the issue of lack of transparency and corruption that is arguably crippling many developing countries on the African continent, there is potential for E-governance to be used as a mechanism for social isolation and control. Although many regulators and Governments are aware of the significant benefits that come with effective e-governance, they appear not to have given much thought to the risks created by the collation and centralisation of large amounts of personal information. This paper will look at the ways in which e-governance can be abused by leaders/politicians to gain political leverage and create political unrest and concludes with a discussion on the issue of Privacy and the challenges faced by leaders in their attempt to effectively regulate it.

Keywords: Privacy, social isolation

Presentation Only

Acceptance Behaviour and Use of an Electronic tax Declaration System: Extending Current Factors Theories of Adoption

Jyoti Devi Mahadeo¹ and David Wastell²

¹University of Technology, Mauritius

²Nottingham University Business School, UK

Abstract: This paper investigates the acceptance and diffusion of a recently implemented e-tax declaration system in Mauritius. E-declaration has been made possible in Mauritius since the last two years and the introduction of this system has created a new perspective for the Mauritian tax management system. It represents a novel example of the application of modern information and communication technologies on the taxation process and development. The e-tax system is expected to offer valuable opportunities for tax authorities to manage more efficiently the tax declaration and collection processes. For example, it is anticipated that tax revenues will increase since better monitoring of tax declaration will be made possible. The e-tax filing system is a new issue; and research in this area has only recently emerged, moreover the electronic tax declaration in emerging nations such as Mauritius is fairly un-researched. Since two years, Mauritian citizens have the choice between the traditional filing of taxes and the electronic filing system, though the Government and Tax authorities are strongly promoting the use of the electronic format. This study attempts to identify factors which influence users' acceptance and post adoption behaviour. A conceptual model was devised and the hypothesised relationships were tested using structural equation modelling.

Keywords: e-Tax filing, TAM, DOI, structural equation modelling, emerging economy