

# **9th European Conference on e-Government**

**Westminster Business School  
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Edited by  
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Trinity College Dublin  
Ireland

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## **Preface**

These proceedings represent the work of presenters at the 9th European Conference on e-Government (ECEG 2009).

The Conference this year is being held at the University of Westminster Business School and the Conference Chair is Panos Hahamias.

The opening keynote address is given by Steve Jenner, UK Government advisor on IT Portfolio & Benefits Management and the second day will be opened by John Suffolk, Her Majesty's Government CIO.

The Conference will bring together practitioners and researchers from 36 countries in the area of e-Government. Participants will be able to share their research findings and explore the latest developments and trends in the field which can then be disseminated in the wider community.

With an initial submission of 156 abstracts, after the double blind, peer review process there are 83 papers published in these Conference Proceedings. These papers represent research from countries including Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, China, Egypt, France, Germany, Ghana, Greece, Hong Kong, India, Iran, Ireland, Italy, Jordan, Kenya, Kuwait, Luxembourg, Malaysia, Mauritius, Nigeria, Norway, Romania, Russia, Slovenia, South Africa, Spain, Thailand, The Netherlands, Turkey, UK and USA. This will ensure a very interesting two days.

I hope that you have an enjoyable conference.

Dan Remenyi  
Conference Chair  
June 2009

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

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Belfast, UK) Bert Mulder (Haagse Hogeschool, Den Haag, Netherlands); Hilary Mullen (Buckinghamshire Chilterns University, UK); Darren Mundy (University of Hull, UK); Olli Mustajarvi (The Finnish Parliament, Finland); Paul Nixon (Haagse Hogeschool, Den Haag, The Netherlands); Abdelkader Nouibat (University of M'Sila, Algeria); Briony Oates (Teeside University, UK); David O'Donnell (Intellectual Capital Research Institute of Ireland); Adegboyega Ojo (United Nations University, Macao, China); Mustafa Kemal Oktem (Hacettepe University, Ankara, Turkey); David Osimo (ICT Unit, European Commission/JRC/IPTS, Seville, Spain); Maria Osuna Alarcón (Salamanca University, Spain); Eleonora Paganelli (University of Camerino, Italy); Thanos Papadopoulos (The University of Warwick, UK); Shaun Pather (Cape Peninsula University of Technology, South Africa); Key Pousttchi (University of Augsburg, Germany); Thurasamy Ramayah (Universiti Sains Malaysia, Malaysia); Rajash Rawal (Haagse Hogeschool, Den Haag, Netherlands); Vivien Reid (Glasgow Caledonian University, UK), Oliviero Riganelli (University of Camerino, Italy); Jose Rodrigues (Federal University of Paraíba, Brazil); Sabine Rotthier (Hogeschool Gent, Belgium); Spurge Rudman (Cape Peninsula University of Technology, South Africa); Alain Sandoz (VaubanTechnologies, Neuchâtel, Switzerland); Hans Scholl (University of Washington, USA); Jamal Shahin (Vrije Universitat, Brussels, Belgium); Carlo Simon (Provan School of International Management, Germany); Helge Simonsen (Verdande AS, Norway); Patrick Sinz (Ethica SAS, France); Bernt Solvang (Agder University College, Norway); Peter Sonntagbauer (Federal Computing Centre, Austria); Kamen Spassov (Coordination Center for Information, Communication and Management Technologies, Bulgaria); Sasikumaran Sreedharan (King Khalid university, Saudi Arabia); Bernd Stahl (De Montfort University UK); Margery Stapleton (University of Limerick, Ireland); Kamelia Stefanova (Sofia University, Bulgaria); Simon Stephens (Letterkenny Institute of Technology, Ireland); John Taylor (Glasgow Caledonian University UK); Marcel Thaens (Erasmus University, Rotterdam, Netherlands); Tim Turner (University of New South Wales, Australia); Hein van Duivenboden (Tilberg University, Netherlands); Rudi Vansnick (Internet Society of Belgium); Are Vegard Haug (Faculty of Law, University of Oslo, Norway); Stuart Warden (Cape Peninsula University of Technology, South Africa); Ntombovuyo Wayi (North West University, Mafikieng, South Africa); Diana Wilson (Trinity College Dublin, Ireland); Rob Wilson (University of Newcastle, UK); Les Worrall (University of Wolverhampton, UK); Jim Yonazi (University of Groningen, The Netherlands); Dushana Zdravkova (Varna District Court, Varna, Bulgaria).

# Biographies of Conference Chairs, Programme Chair and Keynote Speaker

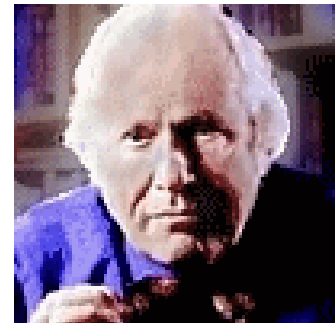
## Conference Chair



**Panos Hahamis** is a Senior Lecturer in Business Information Management at Westminster Business School, and is teaching at both undergraduate and postgraduate levels. He holds a first degree with Honours in Politics and Geography from the University of Westminster, a Masters in Advanced Information Technology with Distinction from London South Bank University and a PGCHE from the Education Initiative Centre, University of Westminster. After a 13-year career as a Greek Army Officer, including a 2-year tour of duty in Cyprus, Panos served as a Diplomat in London with the Greek Ministry of National Defence. He has also worked as a Researcher for a London Member of the European Parliament. He is a Member of the British Computer Society (MBCS), the Chartered Institute of Linguists (MCIL), a Fellow of the Higher Education Academy (FHEA) and a Global Internet Society (ISOC) Member. For the past few years Panos has focused his research interests on e-Government. He is currently studying for a DBA at Henley Management College.

## Programme Chair

**Dr Dan Remenyi** is a Visiting Professor specialising in research methodology at the School of Systems and Data Studies at Trinity College Dublin and a Visiting Academic Fellow at Henley Business School in the United Kingdom. He works in both research methodology and the sociology of research in which he teaches and researches. He works extensively with research degree candidates and supervisors at both doctoral and masters level. He conducts a number of seminars on topics related to improving effective academic research and obtaining better results. His other academic interests are in the field of information systems management with special emphasis on the evaluation of information and communications technology investment, in both the private and the public sector. He has researched and published in the fields of knowledge management, e-Business and e-Government. His major concern in this respect is to help organisations understand if they have been obtaining value for money from their investments.



## Keynote Speakers



**John Suffolk** was appointed Her Majesty's Government Chief Information Office on the 5th June 2006. Prior to this he was the Director General of Criminal Justice IT (CJIT) from February 2004. He has a background of over 25 years' experience in IT and major transformation programmes. John has worked in the engineering and financial service industries and has extensive experience in delivering IT-enabled change. He has had many and varied roles at Director level, including as a CIO twice in different organisations, as well as Customer Services Director, Operations Director and a Managing Director of a multi-channel £20bn business. His experience of running large, national businesses means John has the track record and insight to lead major IT-enabled transformation programmes which deliver clear business benefits. John leads the work of the CIO Council in delivering the Government's strategy for the transformation of public

services enabled by technology. John also provides leadership to the IT Profession across the wider public sector and enable public service transformation through the strategic deployment of technology which includes driving the use of shared services. John acts as the 'face' of UK Government IT both home and abroad. He is a frequent conference speaker on transformational change and leadership in the UK and abroad. In his spare time he looks after his farm protecting rare breed sheep and pigs.

**Stephen Jenner** has extensive experience of Investment Appraisal, Portfolio Management and Benefits Management in the public sector – primarily the UK although he has also worked in the public sector in Australia and in both spending Departments and the centre. He was the driving force behind the development of the CJS IT approach to Portfolio and Benefits management that has received international recognition – for example, by Gartner, the European Commission's economics of e-Government project and by the UK Government report to the OECD that refers to it as "UK Best Practice" – and which won the 2007 Civil Service award for Financial Management. He was described by the UK Government CIO as, "the rottweiler of benefits management." From mid 2006, he was Director of Criminal Justice IT, following the appointment of his predecessor, John Suffolk, as the first UK Government CIO. He continues to advise UK government departments on the development of their approaches to Portfolio and Benefits Management as part of the Transformational Government and Service Transformation agendas. Steve is a Fellow of the Chartered Institute of Management Accountants (FCMA), has an MBA from Strathclyde Graduate Business School and also holds a Masters in Applied Criminology & Management from Fitzwilliam College, Cambridge University. He is a regular speaker at conferences on the subjects of Investment Appraisal, Portfolio Prioritisation and Benefits Management. His latest book *Realising Benefits from Government ICT Investment – a fool's errand* is available at [Academic-Publishing](#)



## **Biographies of contributing authors (in alphabetical order)**

**Manal Abdel-Fattah** is a PhD candidate at the faculty of computers and information in Cairo University - Egypt, the topic of her research is about “evaluation framework for e-government”, she holds a BSc in Accounting, a Diploma and MSc degree in Computer Science. Manal has worked for two years as a Diplomat with Egyptian Defense Attaché in the United Kingdom; also she was working as a project manager for web applications and database developer. Now she works a researcher for e-government field.

**Hany Abdelghaffar** is a lecturer at the German University in Cairo, Faculty of Management Technology. He has several publications in different knowledge fields including e-commerce, e-business, e-government and e-learning. His research interest is about applying successful e-government and e-business projects in developing countries. Dr. Abdelghaffar had his PhD degree from Middlesex University, London, UK.

**Ahmed Al-Hadidi** is an employee in the ministry of Defence in the Sultanate of Oman, with special responsibility for information technology developments. He did Diploma in Information Technology Management and He did his first degree in mathematics and computer at college of Nizwa, and a Master's degree in Information Technology at Portsmouth University, UK. Nowadays, He is doing a PhD in Cardiff University in Critical Success factors for the Adoption and diffusion of Mobile services in the Sultanate of Oman.

**Hayat Ali** is a doctoral student at the Business School in the University of Manchester. She holds a Master's degree in Computer Science from the University of Wolverhampton and Bachelor's degree in Business Information Systems from University of Bahrain.

**Reem AL-Kaabi** is originally from Kingdom of Bahrain. She completed a BSc in computer science at University of Bahrain before pursuing an MSc in Internet System Development at Portsmouth University. She studies 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.

**Haya Almagwashi** is a PhD at the School of Computer Science of Cardiff University. Her research interests are in the areas of information systems security and privacy and currently her research focus is on electronic government security and privacy. Her interest in e-government security started since 2003 and she has done her master thesis on analysing how Public Key Infrastructure can fulfill e-government? security requirements

**Soud Almahamid** earned his doctorate in 2005 in Management Information Systems at the University of the West of England /UK. He is currently the Vice-Dean of Business Administration Department at Al-Hussein Bin Talal University/Jordan. He lectures on knowledge management, e-business, and e-government at the both graduate and postgraduate levels. His main research lines are knowledge management, agility, e-business, and e-government. He has presented a number of papers at national and international level conferences He has also authored numerous publications in national and international journals. Almahamid worked as a head of Business Administration Department since 16/9/2007 till 15/9/2008 and currently he is the Vice-Dean of Business Administration and Economic Faculty at Al Hussein Bin Talal University.

**Xiaomi An** Ph.D. professor of Key Laboratory of Data Engineering and Knowledge Engineering (Ministry of Education) and the School of Information Resources Management at Renmin University of China. Research focus: information resources management, records management, knowledge management. Chaired or undertaken 24 research projects with 137 academic papers and 12 invited English speeches at international conferences.

**Abdullah Al-Shehab** is a Lt. Col. at Kuwait Ministry of Defense working within the IT community. Some areas of interest is software development risk management, others relating to Information Systems project management and implementations. Abdullah has an experience of about 25 years and holds a Bachelor of Science in Computer Science from Ashland University, Ohio and a PhD in computer science from Brighton University, UK in 2007. High rate failure of software development projects was a major motive for researching successful and failure factors in software development environment of traditional IT projects. Causal maps technique was applied in this research resulting in developing a causal model for identifying risk areas in the project. The research now is focused on applying similar approach in E-Government development projects which holds a potential promises.

**Amel Attour** is Research Assistant at the University of Nice Sophia Antipolis. Her research interest is about industrial economics, regional and local development, ICT and uses of internet in administration, public management and organizational change. Christian Longhi is Senior Researcher in Economics in CNRS at the Gredeg, Sophia Antipolis. He has specialised in areas of industrial. economics, business organisation and strategy, regional and local development and high tech centres, ICT and uses of internet in the administration and tourism.

**Charles Ayo** holds a B.Sc., M.Sc. and Ph.D in Computer Science. His research interests include: mobile computing, Internet programming, e-Business and government, and object oriented design and development. He is a member of the Nigerian Computer Society (NCS), and Computer Professional Registration Council of Nigeria (CPN). He is currently the Director of Academic Planning Unit of Covenant University, Ota, Ogun state, Nigeria, Africa. Dr. Ayo is a member of a number of international research bodies such as the Centre for Business Information, Organization and Process Management (BIOPoM), University of Westminster; the Review Committee of the European Conference on E-Government; and the Editorial Board, Journal of Information and communication Technology for Human Development among others.

**Frank Bannister** is a senior lecturer in Information Systems and Head of the Department of Statistics and the Information Systems Laboratory at Trinity College. Dublin His research interests include e-government, e-democracy, IT value/evaluation and questions of privacy and trust in on-line environments. He is editor of the Electronic Journal of e-Government, a fellow of Trinity College, a fellow of the Irish Computer Society and a Chartered Engineer.

**Rabindra Narayan Behera**, Ph. D. in Computer Science, presently working as Technical Director, National Informatics Centre, Bhubaneswar, Orissa, India. 20 years of experience in IT, District Informatics, WWW services. Member editorial board: Serials publications(<http://www.serialspublications.com>) journal Technical Committee member, Orissa Modernising Government Initiative- DFID funded project, Orissa government NIC Co-Ordinator, National Portal of India(<http://india.gov.in>)

**Roberta Bernardi** is currently a PhD student in the Information System and Management Department of the Warwick Business School (UK). Her research interests are usage of IT in the restructuring of the public sector in Africa. Before her PhD she worked in Kenya on a Parliamentary Information System project sponsored by United Nations.

**Choompol Boonmee.** He received his PhD from Nagaoka University of technology, Japan in 1998. His interest includes software engineering, distributed object, e-government, interoperability, XML based technology and learning technology. He works as a lecturer in faculty of engineering, Thammasat University, Thailand. He has been a consultant for a number of ministerial departments of Thailand.

**Harry Maishe Bopape** is an Academic Administrator in the School of Computing at the University of South Africa (Unisa). He holds first degree in Physics and Mathematics, a Diploma in Data metrics in Information Technology and Decision Modelling, and a Masters in Business Leadership (MBL) through Unisa's School of Business Leadership (SBL). He is currently studying for a PhD in Information Systems at Unisa.

**Christian Boudreau** is a professor at l'École Nationale d'administration Publique du Québec (Canada). He received his PhD in management from Laval University (Québec) in 2002. The main topics of his research are benefits of e-government, organizational reflexivity and surveillance. In his recent research, he explores the complexity of the horizontal governance in different Canadian projects. He is also a specialist in qualitative methods, especially case studies and the grounded theory.

**Barbara Buckley Owen** trained as a librarian and spent 26 years working for a wide range of employers, including the British Library, Library & Information Commission and the Statistics Commission. She specialised in information policy and is now pursuing a PhD at Loughborough University investigating her long-held interest in how governments provide information to citizens.

**Michael Butler** joined the Irish Revenue Commissioners in 1981 and has worked across both the Customer Service and Audit sectors. Michael is considered to be particularly expert in the areas of VAT and Capital Gains Tax. He is currently serving in Clare Revenue District, which is one of the newest offices in the organisation and he plays a key role in the development and implementation of the District's audit strategies and capabilities.

**Gülçin Büyükoçkan** is Associate Professor at the Department of Industrial Engineering, Galatasaray University. She received her B.Sc. degree in Industrial Engineering from Istanbul Technical University in 1993. She received MSc degrees in Industrial Engineering from ENSGI/INPG in France (1996) and from Bogazici University in Turkey, 1997. In November 1999, she completed her PhD studies in Industrial Engineering in INPG, France. Her current studies mainly focus on information systems, new product development, logistics and supply chain management and the applications of multi criteria decision-making and intelligent techniques on these areas.

**Tom Collins** lectures in International Tax and Advanced Tax in the B.A. (Hons.) in Applied Taxation and in Wealth management in the M Sc ( Computational Finance) at the National Centre for Taxation Studies, University of Limerick. Tom has over 25 years experience with Big 4 tax practices in Ireland and New Zealand . Prior to joining the University of Limerick he was a Tax Director with Deloitte up to August 2007 specialising in international tax , real estate and wealth management.

**Regina Connolly** is a senior lecturer at Dublin City University and is director of the MSc in Electronic Commerce programme. Her research interests include e-government, technology-mediated trust and privacy issues, and medical informatics. She is editor-in-chief of the Journal of Internet Commerce, Senior Editor of Information Systems Management and European Editor of the International journal of Advanced Decision Sciences.

**Mohan Datar** with over 35 years of experience is a professional consultant and shares his expertise in e-government with Gov3Ltd. and ABM Knowledgeware Ltd. His other areas of expertise are Application Software Development, IT Strategy Consulting, Enterprise Architecture, IT governance and Security. Mohan Datar is Fellow of Computer Society of India and Executive Committee member of SIGeGov India.

**Finn de Brí** is an ICT professional with a government department for more than 15 years. He is also a lecturer in Information Systems at the Institute of Public Administration, Dublin. He is a Doctoral degree candidate at Trinity College, Dublin. He holds a B.A. in Public Administration and M.B.S. in Financial Economics.

**Mitja Dečman** graduated in 1997 at University of Ljubljana and gained Masters of Computer science in 2001. He is an assistant at Faculty of Administration for the field of informatics and currently finishing his PhD about long term preservation of authentic electronic records. He participated in several research and implementation projects on development of information systems, benchmarking systems and others considering development of e-government. He has been author and co-author of many scientific articles and conference presentations.

**Alberto Ivo Dormio** graduated in Mechanical Engineering at the Politecnico of Bari (Italy). He holds a Master in Management of Innovation and a Ph.D. in Management Engineering. Since 2006 he is an associate professor at the University of Parma in Italy. His research activities mainly concern innovation management, project management and technology transfer.

**EI Kettani** is a professor of Computer Science at ENSIAS-University Mohammed V-Souissi. He teaches « System and Network Security ». He has many publications in « eGovernment security » field. He is the coordinator of « Juniper Networks Academic Alliance » in ENSIAS. He is member of ITU High-Level Experts Group n°3. This working group assisted ITU's Secretary-General in developing strategic proposals to Member States, within the process of development of a national cybersecurity plan.

**Asmae El Mahdi** is currently working at Enhanced Technologies, Al Akhawayn University Technopark; a research member of the Information and Communication Technologies for Development (ICT4D) Research Laboratory at Al Akhawayn University in Ifrane, Morocco. Her research areas are centered on technology innovation in local public administration in developing country contexts. She has been actively involved in Morocco's several citizen-centric technology initiatives led by Enhanced Technologies (such as the elaboration of eGovernment portals for Morocco's economic regions) and the ICT4D Research Laboratory (such as ICT-enabled service delivery projects in Fez, Larache, Ifrane, and El Hajeb Provinces, LOG IN Africa, and wman@fes).

**Adham El Shetehy** graduated from Arab Academy for Science & Technology in 1998. I got my bachelor degree with honour in Business Administration specialized in Management Information Systems (MIS). In 2001 I got my MSc degree from Middlesex

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**Viktorija Garner** is graduating from the University of Westminster this summer 2009 with a Law degree (LLB), and she is currently agonising over where to read her Masters degree in Law. Her particular research areas include regulation of innovation, competition law, UK and international taxation and global e-Governance. She has some experience in working with debt collection, fraud litigation and business accounts management.

**Gemma Gibert**, Date and place of birth: february 9, 1973, Catalonia. She graduated in Sociology from Autonomia University of Bellaterra.( Catalonia). During the last eight years she has been working at the Youth and Cityzen Participation department of local Administration of Sant Andreu de Llavaneres. She has been involved in various projects related to build new forms of partnerships between government, citizens and civil society organisations

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**Timo Herborn** studied Business Administration and Information Management at the University of Koblenz, Germany. Since 2006 he works in the EU Projects R4eGov and BRITE, especially on the harmonization and interoperability of data of public institutions throughout Europe. While exchanging information many monitoring possibilities and obligations turned up and have become subject of his work

**Rene Hexel** has been an active researcher in the area of real-time communication environments and time-triggered systems. His recent research has been on ubiquitous computing environments, particularly networked mobile and autonomous systems. A strong focus of his research has been human-computer interaction with such systems, particularly investigating privacy and security. Dr Hexel is currently supervising two PhD students in the area of privacy, security, and trust into computing environments.

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**Veit Jahns** worked as research assistant at the Institute for Computer Science and Business Information Systems (ICB) of the University of Duisburg-Essen. His research interests were and are focused to questions regarding the interoperability of information systems, in particular information systems in public authorities. Now he works as software engineer and consultant at the otris software AG.

**Muhajir Kachwamba** was born in 1973. Between 2005- 2007 he pursued a Master degree in Business Administration (Project Management). He is currently a PhD student in International Management at the University of Agder, Norway. His academic areas of interest include; Economic development, International management, Project management and Economic of e-government.

**Hasmiah Kasimin** is a lecturer(Associate Professor) at the Faculty of Economic and Business, Universiti Kebangsaan Malaysia. She obtained her MSc. (1978) and PhD (1988) in Management Information Systems from London School of Economics and Political Science. Her current research interests are in the area of e-government evaluation, information technology transfer, and biotechnology industry.

**Elnaz Ketabchi** was born in Iran in 1978. I have BA in Software Computing Engineering and MS degree in MBA from Carleton University in Canada. I am a faculty staff of

Informatics Centre at the University of Tehran. I am currently a Head of Business Intelligence Department in this center. My research interests' topics are eLearning, business intelligence, information technology and eEverything.

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**Bram Klievink** is PhD researcher at the faculty of Technology, Policy and Management at Delft University of Technology. Bram holds a degree in political science and a degree in business information systems. His research specializes in coordination mechanisms for public-private service networks. For this research he participates in several research projects, including a project focused on creating demand-driven service-delivery by government and private partners, and a project on the coordination of multi-channel management in government.

**Levent Koc** is a senior student in computer engineering department of Bilkent University, Turkey. He was an intern at Secure Systems Laboratory of Vienna University of Technology, Austria in 2008. His research interests include databases, information retrieval and applied security.

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# **Why the Interpretive Paradigm is Needed for Evaluating e-Government Systems?**

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**Abstract:** The focus of e-government evaluation is moving from merely technical issues to issues that span the social, political, cultural, economic environment of spheres in which an organization operates. In addition, the need to determine the aspects that should be evaluated, which include the subject of evaluation, the criteria used and their measures, the type of data use, the time frame, the stakeholders involved in the evaluation and the tools and techniques applied. According to these aspects, we can determine the philosophical assumptions that will be followed to select a specific type of evaluation paradigm. This paper outlines the philosophical debate related to ontological, epistemological, methodological and human nature assumptions, and then explores the match between the evaluation paradigm needed for e-government systems and the interpretive paradigm as our chosen paradigm. Also, the paper discusses different types of evaluation paradigms, and it focuses on the philosophical foundations that lead to choosing the interpretive paradigm as a main paradigm for producing relevant understandings of the contexts of e-government systems. Factors influencing the choice of interpretive research to e-government systems will be discussed. And, brief discussion for assuring the rigor and trustworthiness for the interpretive paradigm research will be outlined.

**Keywords:** e-Government, evaluation, paradigm, interpretive, philosophy

# **Citizens' Readiness for e-Government in Developing Countries (CREG)**

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**Abstract:** Many developing countries are facing difficulties in applying successful electronic government (e-government) projects. A major part of these difficulties that they are not used by citizens due to the lack of appropriate ICT infrastructure that support e-government services; in addition to the existence of a small percentage of citizens who are able to deal with such technology. This paper introduces an empirical research that closely investigates the e-government weaknesses in developing countries from two major perspectives: e-readiness and trust. The research proposes a model, based on reviewing e-readiness assessments and relevant literature, which investigates the impact of citizens' readiness for e-government (CREG) on e-government success within developing countries. The model was tested on the Egyptian e-government projects as a sample of developing countries. The research findings confirmed the importance of the CREG model to achieve successful e-government projects in developing countries. E-readiness factors showed a significant impact on increasing citizens' usage of e-government services. However, e-readiness factors need to be combined with trust in both the technology and e-government in order to encourage more citizens to use e-government services.

**Keywords:** e-Government, e-readiness, G2C, trust, developing countries, Egypt

# **Critical Success Factors for the Adoption and Diffusion of m-Government Services: A Literature Review**

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**Abstract:** Through a comprehensive review of the relevant literature, including empirical studies in a range of cultural environments, including the USA, Europe, the Middle East, and Australia, this paper considers the critical success factors (CSFs) associated with the successful adoption and diffusion of m-government in differing cultural contexts. It starts from the understanding that in the history of information systems projects in business there has been more failure and success despite significant increases in investment, and that paradoxically despite this disappointing track record, the imperative worldwide is to advance the take-up of e- and m-government in a bid to increase the democratic process. Within the paper, the focus is on organisational and company factors, and competences that act as enablers of successful e-government, and hence m-government implementation. To obtain a wide insight into the international experience to date, studies of five projects with differing aims are investigated, from which it is observed that in different cultural environments, and depending upon the nature of the organisation and initiative concerned, the CSFs vary in their visibility and importance. Moreover, it is noted that certain factors that emerge as dominant in particular phases of such initiatives, have much less influence as these projects mature. The importance of the stage of an e- or m-government initiative is, therefore, raised for consideration. After comparing and contrasting the models proposed by a variety of scholars, and despite their inherent differences in the degree of influence and emphasis of certain CSFs, a consensus of opinion regarding the pre-requisites for the successful adoption and diffusion of electronic initiatives is seen to arise. From the literature, and these five international case studies on CSFs, the author has integrated a number of factors and introduced some new ones, to develop a new model comprising 16 CSFs that address both hard and soft issues within organisations. This new model is offered as one that is more suitable for the adoption and diffusion of m-government in a range of cultural environments.

**Keywords:** e-Government, m-government, critical success factors (CSFs), cultural environments

# **A Collaboration Pattern Language for e-Participation: A Strategy for Reuse**

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**Abstract:** Collaborative Web technologies make it possible for the geographically dispersed citizens to participate in the government's decision making. The challenge is, however, to choose suitable technologies that meet the requirements of eParticipation. This paper proposes a collaboration pattern language as a new approach to designing architecture for eParticipation systems. Such a language can serve as a guidance to help the designers of the eParticipation systems to choose suitable collaborative technologies. The proposed pattern language is based on the work in the areas of collaboration engineering and software engineering, and is illustrated using Manchester Congestion plan as an example.

**Keywords:** Public participation, e-democracy, e-participation, pattern language, collaboration engineering, collaboration patterns

# **e-Government Success Factors: A Survey**

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**Abstract:** Government requires delivering its services and products in a way that meets the needs of new businesses and life requirements. The term electronic government or “e-government”, one of the most modern management terms that have emerged over the past few years. E-government means that government transfers its management, services and functions onto the Internet. E-government is a way for government to use the most innovative information and communication technology to offer citizens, businesses and employees with efficient access to government information and services. So e-government becomes a vital issue in many countries. However, the e-government is not an easy issue; it requires change which could face resistance from employees and citizens. Without good leadership, careful planning and ongoing monitoring of e-government, projects could easily fail. The future of e-government for government activities and other activities has a lot of challenges. There are a number of success factors as well as failure avoidance factors of the e-government program in countries. Numbers of authors defined Critical Success Factors (CSF's) in different ways, but they agreed that there are activities or critical factors required for ensuring the success of your business. The different definitions of CSF's due to ambiguity of the word “critical” when translated to other languages. This paper reviews critical success factors “CSF's” from different perspectives. The reviewed CSFs are driven from literature and our own experiences.

**Keywords:** e-Government, Critical Success Factors (CSFs), ICT, e-commerce

# **Understanding the Government to e-Government Transition Using a Soft Systems Approach: What is e-Government Supposed to do?**

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**Abstract:** Governments around the world are implementing or launching plans for developing electronic government projects. However, the deployment of e-government projects has faced various obstacles and in many cases has failed to satisfy the expectations both of the government and its citizens in delivering government services. Previous efforts of understanding and analysing government to e-government transition have mainly focused on business models used for analysing transition to e-business or have used e-government maturity models for describing the different development stages and processes involved in the deployment of e-government. However, the concept of electronic government is complex, multi-disciplinary and influenced by a variety of perceptions from different stakeholders. Such a complex, multi-disciplinary real-world problematic situation is not amenable to traditional business analysis approaches, and instead needs a holistic approach. Thus, we have used systems thinking methodologies, and in particular Soft Systems Methodology (SSM), to understand the concept of government and explore the activities involved in order to understand the purpose of government, prior to considering where e-government may be appropriate. In this paper, we consider e-government as a service system to serve and support the activities of government. Our aim is to explore and understand the system served (government) from different perspectives in order to understand the service system (e-government). Our holistic approach uses the Enterprise Model Assembly method in SSM to develop a conceptual model relevant to government that illustrates the tasks that should be carried out by governments. We identify the necessary subsystems involved in thinking of the government as a system and the interdependencies between these subsystems. Using the model as a reference, we illustrate how government activities can be considered in an e-government context and how it can help in deciding on what e-government is supposed to do while including diverse perspectives about the purpose of government. In addition, the model can be used as a framework for exploring various issues and obstacles facing e-government projects.

**Keywords:** Government, e-Government, conceptual model, soft systems methodology

# **Determinants of User Continuance Intention to use e-Government**

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**Abstract:** Purpose- This study aims to empirically explore determinants of user continuance intention to use e-government (perceived usefulness, perceived ease of use, perceived internet self- efficacy, and perceived information quality).The study proposes that perceived usefulness, perceived ease of use, perceived internet self-efficacy, and perceived information quality determine continuance intention to use e-government. It has been argued that perceived usefulness, perceived ease of use, and computer self-efficacy determines continuance intention to use e-government. This study extends these arguments by including perceived internet self-efficacy and perceived information quality. We argued that internet self-efficacy is more important than computer self efficacy for using e-government websites and e-services. Motivations- The motivations for conducting this study is the fact that this work has never been done in Jordanian e-government context, in addition, to the best of my knowledge, there is a significant part of e-government literature investigated factors that determine intention to use e-government but there is dearth of studies that investigate continuance intention to use e-government. Finally, it is an empirical research where important findings will be emerged and as a result, relevant recommendations will be considered, however, it is expected that this study will contribute to the knowledge of both academics and practitioners. Design/methodology/approach- A questionnaire is developed based on the e-government intention and continuance to use literature. The sample of this study is drawn from employees who are working in governmental organisations and have already used the e-government websites and e-services. Findings- The results of data analysis revealed that the continuance intention to use e-government services is a function of perceived usefulness, perceived ease of use, perceived internet self-efficacy, and perceived information quality. Research limitations- The research has not taken into consideration all the contextual factors that might affect continuance intention to use e-government. It concentrates rather on perceived usefulness, perceived ease of use, perceived internet self- efficacy, and perceived information quality. It also does not take into account the possibility of any intervening, mediating, and moderating relationships that strengthen the relationship between perceived usefulness, perceived ease of use, perceived internet self-efficacy, perceived information quality and continuance intention to use e-government. Practical implications- Focusing on perceived usefulness, perceived ease of use, perceived internet self-efficacy, perceived information quality and links them with continuance intention would either improve level of continuance intention to use e-government or raise the awareness towards the capabilities (e.g. internet self-efficacy) that citizens should have to use e-government continuously. Finally, it gives policy makers and decision makers' ideas how continuance intention to use e-government could be improved. Originality/value- This paper assists policy makers and government agencies to give more attention to the design and content of their websites. It also helps policy makers and decision makers prepare an effective e-government strategy that engages the contribution of large numbers of citizens - if not all - to promote continuance e-government adoption by a large number of Jordanian citizens.

**Keywords:** e-Government adoption, e-government intension to use, Information quality, perceived usefulness, Perceived ease of use

# **Development of an Instrument to Measure Theoretical Constructs of a Model of Citizens' Trust in e-Government**

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**Abstract:** In e-government context, trust plays a vital role in helping citizens overcome perceived risks. Trust makes citizens comfortable sharing personal information, make online government transaction, and acting on e-Government advices. Thus, trust is a significant notion that should be critically investigated to help both researchers and practitioners to understand citizens' acceptance to e-Government. Prior research in trust has focused mainly on consumer's trust in e-Commerce. Most of existing literatures on trust in e-government focus on technical perspective such as PKI. This paper contributes by proposing a conceptual model of citizens' trust in e-Government. The proposed conceptual model of citizens' trust in e-government is integrated constructs from multiple disciplines: psychology, sociology, e-commerce, and HCI. The research is aimed also to develop items in order to measure the theoretical constructs in the proposed model. The pool of items is generated based on literature review. Q-Methodology has been utilised to validate the generated measurement items. The outcome of two Q-sorting rounds resulted in developing a survey instrument for proposed model with an excellent validity and reliability statistical results.

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

# Structuring Risk in e-Government Development Projects Using a Causal Model

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**Abstract:** -Government (E-Gov) projects are increasingly being implemented worldwide. However, the risk management literature relating to E-Gov development projects is minimal compared with traditional Information System (IS) development projects. The success or failure of such projects depends on a number of obstacles to be overcome. Traditionally project actors use checklist, brainstorming, questionnaires, and workshop/focus-group to identify risk in IS development projects, and this research uses a similar approach applied in E-Gov development projects. This experiment investigates and attempts to use a causal core model known as CorMod to facilitate the applicability of applying a causal core model in a workshop/focus group environment to enhance the identification and analysis process of risk in the early stages of E-Gov development projects. The model/tool was based on the techniques of causal maps and has been used previously in three different traditional case studies of IS development projects with encouraging results. The model/tool combines different approaches such as brainstorming, questionnaires, and workshop/focus-groups. These methods have been used in IS traditional development projects, however, this research is concerned with their applicability within E-Gov development projects. One feature of CorMod is its ability to structure risk factors in development projects. This experiment, using CorMod, was conducted in the early stages of a large scale E-Gov development project based in Kuwait. The case study was conducted at a government agency within the government of Kuwait in charge on executing the national E-Gov program in the country. One main objective of this experiment is to improve the assessment of risk management approach in E-Gov development projects.

**Keywords:** e-Government development project, risk management, causal maps

# **Local Innovation Policies in Services: The Role of Local Governments in the Implementation of e-Administration**

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**Abstract:** This article constructs an analytical framework to investigate the development of electronic administration (e-Administration) recently implemented by the French communes. The existing literature and studies on e-administration generally focus on progress at national level. However, online public services are being developed at the level of communes in France level, resulting in fundamental changes which are fundamental regarding the relation between the administration and citizens. This article describes the context of these recent developments, identifies a priori indicators of the efforts made by the communes to develop local e-Administration, and tests the implication of the socio economic context on strategies implemented by the communes.

**Keywords:** Cities, innovation local policies in services; local government, e-administration, online local public services

# **A Framework for Voice-Enabled m-Voting System: Nigeria a Case Study**

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**Abstract:** Although efforts have been made by several governments to increase voters' participation during elections, their turnout is still a major concern in many democracies. One of the factors considered to encourage improved participation in elections is to increase the medium of voters' accessibility to the election process. Many studies have demonstrated the value of mobile voting (m-Voting) applications in casting of votes from home, work or on the move but with some inherent limitations. In this study, we propose a framework that integrates voice and m-Voting applications to reduce access barriers and increase participation of voters during elections. A prototype system was developed for experimentation and we examined and reported the prospects and challenges of voice-Voting in Nigeria. The implementation of voice-enabled m-Voting framework will help government eliminate some of the irregularities of manual paper voting; provide alternative platform for the non-physically challenged voters; and also enable people with visual and certain forms of disabilities to participate in electronic voting (e-Voting) during elections. The results of this study would provide insights into ways of improving participation of voters in general elections in Nigeria and other democracies.

**Keywords:** Voting, m-Voting, i-Voting, e-government, voice-enabled, VoiceXML, elections and ICT

# 3GEG: Exploring the Hidden Dimensions of Government ICT

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**Abstract:** Depending one's definition of e-government, research in this field is now well into its second or possibly its fourth decade. The last ten years has seen an enormous volume of research published, but in recent years there has been growing criticism of the quality of much of this research. Critics have pointed, inter alia, to the large number of the case studies (often examining single cases) and the paucity of theory. For much of the last decade, e-government research has been largely focused on the Internet and the Web at the expense of broader exploration of ICT use in public administration. There has also arguably been too much emphasis on e-government as implementation of public services. While implementation, like best practice, barriers to e-government and so on are all important, the focus on service delivery and its problems has left a number of important areas of e-government relatively unexamined. This paper suggests that there are many uses and impacts of ICT in government that are currently being neglected by the academy. Starting from the earliest literature, the history of research into government IT is reviewed. It is suggested that this much we can learn from this research tradition. From this, a number of fields which offer potential for interesting e-government research are proposed.

**Keywords:** Informatization, e-government, research agenda, research history

# Standardization of District Portal: Towards e-Government Transaction in India

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**Abstract:** One of the recent challenges a country faces is preparing its citizens and Government for globalization and information and communication revolution. Information and Communication Technology (ICT) is playing a pivotal role for instituting effective e-Governance, which essentially bridges the gap between government and citizenry. For day-to-day activities, citizens, businessmen, employees and government agencies need to transact with government through various means. There are basically four types of e-Government services prevailing such as; government-to-citizen(G2C), government-to-business(G2B), government-to-employees(G2E), government-to-government (G2G) and e-Governance offers easy operability for them and their cross linkages to achieve a platform for government-to-citizen-to-government (G2C2G). Considering India, it is a country of multidimension, multicultural, multilanguage and multireligion people. It is divided into various States and Union Territories (UT). States are further divided into districts. District is the critical middle level administrative unit which co-ordinates with state and union government, administers various plans, schemes, policies of the government and provides various services to the citizens. The effects of ICTs are far reaching and uneven in reaching various levels of the society. Presently most of the districts are having websites. The websites are yet to be built on a uniform structure to address the real citizen centric requirements and interaction with cross platform agencies. In the present paper, we have proposed to put in place a standardized district portal framework, which contains a solution towards e-Government transactions for districts across the country. As a full fledged e-Government transaction portal, it disseminates information about rural and urban India in district and sub-district level. The portal acts as a single window platform for all categories of information satisfying G2C, G2B, G2E and G2G services. The contents, dialogues and disposals in this portal are stated through English and local languages. *The standardization of district portal initiative is based on the content architecture of the National Portal of India (<http://www.india.gov.in>), a mission mode project of Government of India, under the National e-Governance Plan (NeGP).* In essence, the portal offers to facilitate the government in decision making process and dealing in cross-agencies co-ordination and collaboration. Provision is made for public participation and feedback to District Administration. This is generic with uniform standard format for the country, considering Orissa as a pilot state. **Technology:** The technological frame work and look and feel is uniform. LAMP/LAPP (Linux, Apache, MySQL/pgSQL and PHP) is used as standard technology.

**Keywords:** e-Government, e-government transaction, district administration, state and union government, G2C, G2B, G2E, G2G, standardised district portal

# IT Enactment of New Public Management in Africa: The Case Study of Health Information Systems in Kenya

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**Abstract:** In the last twenty years most African Governments have embarked on public sector reforms sponsored by international partners. Conceived under the New Public Management, the majority of these reforms leverage information technology to decentralise hierarchical structures into more information efficient organizations. The research analyses *how the enactment of information technology influences the organisational outcome of New Public Management reforms in Africa*. This question has been addressed through the case study of the Ministry of Health in Kenya. The case study provides the longitudinal account of how the usage of information technology within two health management information systems of the Ministry has given way to misalignments between NPM discourses and their enactment. Data collection and analysis have been framed within a multivocal and multilevel institutionalist perspective viewing different actors acting under the pressure of competing rationalities (New Public Management and Old Public Administration) at three main levels of action: the macro or policy level (e.g., formal policies), the meso or organisational level (e.g., professional norms of medical field) and the user or agentic level (e.g., IS users' routines). The case study has shown that the clashing between institutional discourses and their enactments caused the mobilisation of different legitimating resources underpinning different enactments of IT-enabled change leading to a partial implementation of reforms. Findings point to the rhetoric behind certain reform discourses by the main actors involved, particularly, at the macro-policy level. The paper calls for a stronger source of socio-political legitimacy to support these discourses around public sector reforms so that through the right competences and systems of values at the meso level information technology can be used as a catalyst for a more consistent implementation of the reforms. New discourses around the potential of IT should be more aligned with certain cultural-cognitive institutions underpinning the intention of policy makers at the macro level inducing Government echelons to legitimize IT at the macro-policy level.

**Keywords:** Information technology, information systems, new public management, institution theory, Africa

# **New Management Models of Public Administration: The Italian Experience of e-Government**

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**Abstract:** The revolution into the fields of “information and communication technologies (ICT)” does not influence only the daily life of the people, but it has also a significant impact on the interactions between the public administration and the citizens. From the beginning of the 1990s, public administration (PA) has been confronted by a series of new demands. A great trend towards growing individualisation is growing up, whereby there are increasing demands by individuals on the state, to provide solutions to a variety of problems. At the meantime, in the context of national and international competition, efficient and effective state activity and support for entrepreneurial activities in a region or country are becoming an increasingly decisive factor in location decisions. For some years, the term, “electronic government” (e-government) has been proposed as a way of closing this gap, therefore it can be said that the core of e-government is the execution of administrative processes. E-government makes it easier for citizens to become involved in and make their contribution to government-related issues, promising to improve the delivery of many public services, like online transactions and the dissemination of information about the operations carried out by the PA. It may improve the communication between citizens and the government, enabling the former to have a more direct involvement in the decisions that must be made by the latter. Then, it allows to use ICT to offer better services to the citizen. An investment in ICT that only achieves an improvement of PA internal efficiency through increased productivity and a reduction in production costs will be halfway through the achievement of its objective, as that internal efficiency does not help to increase the taxpayer’s satisfaction with the public service received. In short, e-government supplies clear benefits to citizens, thus improving citizens’ perception of the public sector. On the basis of the premise listed above, the aims of the paper are: the analysis of the main roles of public sector in promoting e-government initiatives based on literature review. By this review we will discuss the following topics: the development and introduction stages of an e-government system, its architecture for small and medium public organizations, the classification of e-government services, and finally the problems arising during the adoption of e-government practices; the review of current trends in e-government development in Italy, by means of a case study-based research (two regions and two municipalities). Specifically, we will first report the state of the art of e-government in the Italian regions, next we will focus, by means of a questionnaire appositely developed, on the situation (both in terms of knowledge and obstacles) of two Italian region and two municipalities; the development of recommendations and guidelines for the evolution of e-government practices in Italy.

**Keywords:** Case study, e-government, Italy, municipalities, public administration

# **Data set Standardization and its Reusability in e-Government Under an Interoperability Framework - A Pilot Project to Enhance the Reusability of the Agreed Data Sets in Seven Government Domains**

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**Abstract:** To enhance government public service efficiency, an information seamless flow across government agencies is required. The standardization and simplification of data set to be used in electronic data exchange is significant. The agreed guideline and framework is required in a real life application. Thai government created an e-government interoperability framework (e-GIF) to be used as a tool for data exchange implementation. It includes five main parts; business process modelling, data set standardization technique, XML schema building technique, a collection of agreed interoperable technical standards and change management. For the business process modelling, a technique based on UN/CEFACT Modelling Methodology has been used. For the data set standardization, a technique based on CCTS has been used. For XML schema building, a technique based on UN/CEFACT XML naming and design rules has been used. It is found that the reusability of the agreed data sets across various agencies is one of the significant success factors. In 2007 a project called electronic correspondent letter management system (e-CMS) began to standardize a data set in the domain of electronic official letters. In the project 30 ministerial departments involved to use and re-use the data set to achieve the seamless flow of electronic letter across those agencies. However in the project the data set is only in one domain of interest which is a letter. A new project had begun in 2008 to motivate more agencies to build further more standardized data sets from seven different domains. The finding is that the reusability of the data sets across various domain of interest is another significant success factor. In this project some data sets in the domains of education, labor, health, agriculture (livestock), research, governmental human resource and registrations had been built. Among the data sets from each domain, some data sets are very similar across different domain. To harmonize the similar data sets and reuse them as common data sets in different domain becomes significant. The common data sets are for examples; 'Person', 'Address', 'Education' and etc. The data set 'Person' appeared as 'Student' in education domain. It appeared as 'Labour' in labour domain and again appeared as 'Patient' in health domain. In this paper we illustrate that the reusability in those various domains increases the reusability across agencies which in turn enhances the seamless flow across government agencies.

**Keywords:** e-CMS, CCTS, e-GIF, interoperability, e-government, TH e-GIF

# **Social Impact of Information Technology: Implication for a Tertiary Institute**

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**Abstract:** Tertiary educational institutes have developed and implemented a variety of Information Systems (IS) for the use of their students and lecturers. The problem is that insufficient attention has been paid to the impacts of IS on social communities of organisations. The social impact of IS is rarely taken into account when systems are being designed or implemented, leading to many IS failures. This research report gives an account of issues around the interface between IS and society, and addresses the social impact of IS by investigating the IS and its users at the University of South Africa (UNISA). Particular social impacts of IS will be discussed with the objective of proposing a set of guidelines to help ensure that the potential social impacts of tertiary institutes' IS are already being considered in their design and implementation phases, thereby increasing the likelihood of their successful implementation. Those who stand to benefit from information contained in this study include various tertiary institutes' faculties of Information Systems and Technology, the departments responsible for the development of those IS, their users, and encompassing the social community.

**Keywords:** Social Informatics, socio-informatics, social context, user involvement, information systems, information technology, IS, IT, IS&T, ICT, user acceptance; technology adoption

# **Organizational Reflexivity and Flexibility in e-Government: The Case of Québec, Canada**

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**Abstract:** With the spread of new information and communication technologies (NICTs), especially the Internet, the State can assume the form of a “network enterprise” as defined by Manuel Castells (1998), combining mass production and customization, economies of scale and personalized service delivery. In the information age, NICTs represent more than a productivity tool for organizations; they constitute a key source of operational and strategic knowledge. NICTs’ capacity to collect, process and communicate information serves to increase a public organization’s grasp of what is happening in its own internal and external activities, sometimes to a high degree of precision. As they become more transparent and reflexive, public organizations gain the knowledge and capability to improve their day-to-day operations, the quality of the services they offer and the efficacy of their programs. The pursuit of efficiency, quality and efficacy by public organizations depends more than ever on knowledge that is generated and processed by NICTs. Studies of seven online public programs and services in the Canadian province of Québec found that NICTs (and the network organization) increase organizational reflexivity and flexibility in order to: 1) improve the productivity and internal operations of public organizations, 2) respond to fluctuating demand and the need for customization, and 3) detect fraud and adjust programs in light of their impacts. They also raise important ethical issues related to administrative power and surveillance capabilities over public employees and citizens.

**Keywords:** Electronic government, network, organizational reflexivity, surveillance

# UK Government Policy on Citizens' Access to Public Information

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**Abstract:** This paper is based upon early findings of PhD research at the Department of Information Science, Loughborough University, 2007-2010. The research aims to identify the different strands of UK government policies on improving citizens' access to public sector information (PSI) over the last 10 years, investigating how policies were developed and implemented, and by whom. It will particularly look at how the 2007 *Power of Information Review* (Mayo and Steinberg 2007) is influencing government information provision in the era of Web 2.0. eGovernment initiatives have already transformed the provision of PSI, whether directly through digital channels or through third parties, but use of Web 2.0 has considerable potential to expand information services still further. A review of the literature has so far found that much of the academic writing on eGovernance and eGovernment relates to business/systems re-engineering – ie technological aspects rather than policy aspects – and little has been written in the UK on national information policy, as opposed to IT policy, since 2002. Where policy aspects of eGovernment are covered, they tend to have a more general focus than the specific provision of public sector information, and increasingly address eDemocracy. There seem to have been few investigations into how information policy developed over time: a gap which this research is intended to fill. Using a critical realist approach, policies will be analysed through a content analysis of the policy documents, triangulated with analysis of published comment on the policies and in-depth semi-structured interviews with key stakeholders from a range of perspectives. The intention is to gain a three-dimensional picture of the policy-making *process* and make recommendations on how it could and should work in future. Semi-structured interviews with approximately 50 individuals with different perspectives started in March 2009. Early findings show that co-ordination of policy across government is a problem, there is a need for leadership at the heart of government to make things happen, there is a lack of clarity on who actually makes information policy, and government needs a better understanding of the nature of information and information skills. Central to the research will be identifying what mechanisms, if any, were used to evaluate the success of the relevant eGovernment policies, and how the results of the evaluation were used to develop future policy. Unlike many other studies, the focus will be on qualitative measures, not just on metrics. Drawing on experience of evaluation in other countries, it is intended to develop a framework for the evaluation of current and future eGovernment information policy on the provision of PSI to citizens. Based on the research findings, we aim to make recommendations on how policy on access to public information might be measured and evaluated, and on future directions for research in this area.

**Keywords:** Public sector information; PSI; information policy; G2C; access to public information; igovernment

# **On Coffee Cups and Revenue Collection: Visualising Relationship Capital and Radical Change**

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**Abstract:** Adopting a problem-based research focus, a particular methodological approach to an understanding of radical organisational change, and viewed through the theoretical lens of intellectual capital, this paper presents a case-vignette on the emergence, formation and physical relocation of a revenue administration district. We identify the impacts on the human, structural and relationship capitals of the newly formed district, the challenges facing district management and the solutions implemented. At the micro-level of conversations and cups of coffee, the paper concludes that one can more easily visualise the real intangible values in such relationships through the lens of intellectual capital.

**Keywords:** Human capital; intellectual capital; problem-based research; radical change; relationship capital; revenue administration

# **Evaluating Government Websites Using a Multi-Criteria Decision Making Approach**

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**Abstract:** The potential of e-government as a new public medium depends on the quality of web pages and the offered e-services. For this reason, the importance of measuring the performance of e-government initiatives cannot be overemphasized and assessing factors associated with website success are needed. A multi criteria decision making (MCDM) evaluation model that practitioners and researchers can use for assessing the quality of government websites is developed and validated in this paper. More precisely, an axiomatic design based decision making approach is adopted to evaluate government websites' quality. A case study focusing on Turkish government websites is also presented.

**Keywords:** Website quality; government websites; MCDM; axiomatic design; fuzzy logic

# Prototype Implementation of DynaVote e-Voting Protocol

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**Abstract:** Voting is regarded as one of the most effective methods for individuals to express their opinions on a given topic. Electronic voting (eVoting) refers to the use of computers or computerised voting equipments to cast ballots in an election. eVoting performed over Internet can be universally accepted in the upcoming years due to the fact that Internet plays key roles in people's lives. The DynaVote eVoting protocol claims that it is practical over a network since it does not use complex algorithms and has no physical assumptions such as untappable channels, whereas fulfilling core voting requirements such as privacy, accuracy, uncoercibility and individual verifiability. Software development requires considerable amount of time and money. Therefore, in order to utilise all resources, the prototype implementation gains more importance as it gives quick feedbacks about the practicality of the system. This paper presents a prototype implementation of DynaVote eVoting protocol over the Internet. Since DynaVote relies on PVID scheme, which is an unlinkable pseudo identity mechanism, the prototype includes implementation of PVID scheme component as well. The main outcome of this study is to prove that DynaVote protocol over Internet is practical and applicable in real life and to illustrate that PVID scheme provides unlinkability. This study also contributes some improvements in DynaVote e-voting protocol. Furthermore, this paper analyses how the prototype fulfils some electronic voting system requirements such as efficiency, transparency and mobility.

**Keywords:** DynaVote, e-voting, electronic voting, implementation, practically, e-voting requirements

# Whither Ireland's e-Commerce Hub?

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**Abstract:** A key instrument used by MNCs in organising their international tax planning affairs is the location of intellectual property (IP) rights in a low tax jurisdiction. Beyond the simple tax rate, other complications arise as functions may disappear or duplicate, risks differ in comparison to conventional business models, and new internet intangibles emerge such as domain names, copyrights and an emerging new customer base and interface. Examples of dichotomy in Ireland's tax law pertaining to IP identified here include different tax treatments in regard to the tax deductibility of patent and non-patent royalties, wide divergence on the deductibility of capital expenditure on IP, restrictions on the tax deductibility of related party know-how payments, and others. These issues are explored in this paper in order to inform some suggestions on the further development of Irish tax sophistication in this area.

**Keywords:** Benchmarking, e-commerce, foreign direct investment (FDI), intellectual property (IP) taxation, Ireland

# **An e-Government Stages of Growth Model Based on Research Within the Irish Revenue Offices**

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**Abstract:** This paper describes a stages of growth model for eGovernment. The proposed model is comprised of seven stages, which are divided into three phases. The model is based on research into and analysis of Information Systems and Information Communications Technology (ICT) solutions in the Irish Revenue Offices for more than a 50-year period. It is argued that this model provides a useful template for understanding the growth of ICT in government organisations.

**Keywords:** Stages of growth, e-government, learning organisation, ICT, IT evolutionary models, IT maturity

# **Web 2.0 in e-Government: The Challenges and Opportunities of Wiki in Legal Matters**

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**Abstract:** Web 2.0 is a new concept intended to enhance the creativity, collaboration, information sharing and functionality of the web. Blogs, wikis, social networking and folksonomies are often focused on personal life, and many on professional life. In the professional or business environment, both private and public sectors are very interested in offering the best services to the users. The question is how these new concepts and ideas can be integrated into (existing or redesigned) processes and services to achieve this task. This paper in its first part presents an overview of Web 2.0 and links its concepts to the idea of e-government. It searches the possibilities for its implementation in e-government and tries to discover some best cases of Web 2.0 used in public administration. In the second part, the paper focuses on the specific topic of wikis, and introduces a case that suggests the use of a wiki for the interpretation of legislation, especially legislation used by public employees in their everyday tasks. The wiki solution links people in the field of public administration who are drafting legislation with those who have to use the legislation, such as citizens, public employees, legal experts, etc. Wiki is used in a form of a common web site, Administrative Legislation Wiki (AL-Wiki), which offers general information, basic legal theory, use cases, etc. At the same time, all users can use the same Web 2.0 solution to communicate, exchange knowledge, search, correct and improve. The paper suggests and shows that it is not the technology, but the way it is used that makes an improvement in e-government and many other situations. It suggests that the wiki concept is relevant for e-government and could have a significant impact.

**Keywords:** Web 2.0, wiki, legislation, e-government, collaboration, participation, information society

# **NCSecMM: A National Cyber Security Maturity Model for an Interoperable “National Cyper Security” Framework**

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**Abstract:** Security Maturity Model is a systematic approach that replaces traditional security metrics. There is more than one Security Maturity Model (SMM, COBIT, CERT/CSO, ISM3), and each of them has only five levels of maturity, providing the blueprint for a complete security program, telling management the order in which to implement security elements (ISM3 Consortium 2007), and leading toward the use of best practice standards (e.g., BS 17799). But none of them is dedicated to National Cybersecurity. We propose in this paper a « National CyberSecurity Maturity Model », that will make it possible to evaluate the security of a country or a whole region, making thus comparisons between them, and pointing out its forces and threats.

**Keywords:** Cybersecurity, Cybercriminality, "Security Maturity Model", ISO27002

# **Citizens' Perception of the Egyptian e-Government Portal**

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**Abstract:** Number of Egyptian researchers discussed the e-government issue in the context of local channels. This research is conducted to add a better understanding for citizen's perception regarding their e-government web portal. In addition, the research will illustrate the relation between ease of doing business and e-government services usage. The lack of similar research conducted in Middle Eastern countries in general and in Egypt in particular is a good reason to conduct this research. This paper presents the results of a survey on e-participation in Egypt and what is the perception of Egyptian citizens regarding the e-government. This survey will measure the e-government services in Egypt; this will be through a questionnaire using The Electronic Government Satisfaction Model Horan and Abhichandani (2006). The questionnaire will contain 5 main concepts (utility, reliability, flexibility, customization and efficiency). In addition, the questionnaire will contain 2 main sections (personal data and using technology). Regarding the five main constructs section, questions will be coded directly to 1 to 5. This part will use the Likert scale (likert scale is designed to examine how strongly subjects agree or disagree with statements on a five point scale). The result for coding the questionnaire will be 51 variables; all of them are coded 1 to 2, 5, 6 or 7. Number of respondents is 130. Around 71% of respondents are between 20 and 35 years old and 21% are under 20. The questionnaire will produce some statistical results with a description and frequency of happenings. It will show to what extent the respondents are satisfied with the e-government portal. Just 31% are considering e-government portal as a flexible tool on the other hand majority of respondents have good impression regarding the e-government portal's utility. Contribution will be present from the understanding of citizen's perception regarding their e-government web portal.

**Keywords:** e-Government, ease of doing business, public services and citizens

# **Privacy, Transparency and Identity: The Implementation of the e-ID card in Belgium**

**Alea Fairchild and Bruno de Vuyst**  
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**Abstract:** Belgium has been in the forefront of the use of electronic identification cards (e-ID) for its citizens. According to a 2007 paper from the Federal Agency of Interior Affairs, by the end of 2009 more than 8 million Belgians have to possess an e-ID card. As an e-ID card will be necessary for service provisioning, the government has also started with the pilot phases for distribution of e-ID cards to non-Belgians and children under the age of 12. This paper will highlight what privacy and transparency aspects in the implementation process may be help other countries with a similar task. In this paper, we will discuss voluntary versus mandatory acceptance of an e-ID card, and how that impacts both privacy and transparency issues. We will also highlight Belgium's role in the Stork Consortium of countries working for interoperable e-ID across EU countries.

**Keywords:** e-ID, privacy, transparency, applications

# **IT Governance and EuroSOX: Compliance or Confusion?**

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**Abstract:** The paper discusses compliance issues and will start with a succinct discussion of the impact of the Fourth, Seventh and Eighth Company Law Directives (78/660/EEC, 83/349/EEC and 84/253/EEC, as amended in 2006), together the basis for EuroSOX, across the 27 European Union (EU) member states. The paper will thereafter focus particularly on IT governance as a means to reach the stated goals of EuroSOX.

**Keywords:** EuroSOX, IT governance, compliance, implementation

# Challenges to e-Government: Managing Electronic Records in China

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**Abstract:** Chinese e-Government has already gained a great deal of experience since the initiation of government portals and online projects in 1999, with increasingly huge volumes of electronic records created everyday. However, the effectiveness and efficiency of Chinese e-Government has been challenged in managing electronic records. This paper tries to investigate and identify key challenges of electronic records management (ERM) to e-Government, and to observe and suggest effective national strategies to respond to them. Investigations revealed that with insufficient concern for ERM in the development of Chinese e-Government, e-Government authorities in China have faced three key challenges: loss of control of electronic records as national information resources for evidence-based decision making; inability to account for the effective stewardship of national information assets; and inability to support the continuity of the organisation's business activities in the electronic environment. The suggestion from observations of the national strategies for ERM at home and abroad is that, to manage electronic records effectively and efficiently, it is important to develop integrated national strategies: that is, managing electronic records must be integrated into the development of national legal systems, standards systems and information infrastructures. The findings are intended to be of use to both the development of e-Government and ERM.

**Keywords:** e-Government, challenge, electronic records, electronic records management, national strategy China

## **The use of ICT in Brazilian Courts**

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**Abstract:** Transparency and effectiveness are emphasized as two positive consequences of the use of information and communication technologies (ICT) in the Courts. Indeed, ICT expanded the possibilities of access to information and judicial decisions, as well as its use especially in acts of distraintment, have given greater transparency and effectiveness to the judicial acts. In Brazil, federal, state and labor courts have web sites where judicial information is disclosed and their decisions are published. Moreover, they have agreements with the Federal Revenue Secretariat, the Central Bank and the National Register of Automobiles that allow them to implement all acts of distraintment. However, not all Courts are at the same stage as to the use of ICT because, on one hand, their web pages do not have all the features available and, on the other hand, their users are unable to explore the full potential offered by the new technologies. Delivering a diagnosis of the existing offer in the Courts' web sites and of the use of their agreements with other public services is the first task that is being proposed here. This paper intends to examine how such things are changing the judicial function and, in particular, the figure of the judge, in addition to contributing to a new insertion of the Judiciary in the society.

**Keywords:** e-Justice. Brazil. web services. access

# Missing Trader Intra-Community Fraud: European e-VAT

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**Abstract:** This paper focuses upon improving the administration of the current European Value Added Tax (VAT) system in light of modern electronic IT development, the spread of globalisation and the success of e-Governance. Specifically, the paper proposes the introduction of an European e-VAT database to enhance an effective way of administering and collecting VAT throughout the European Community and, thereby, eliminating Missing Trader Intra-Community VAT fraud. Missing Trader Intra-Community fraud has emerged as a vast new crime since the introduction of the zero-rated VAT system on transactions (movement of goods) between the Member States of the European Union. In its simplest form, the fraud takes the following shape - the fraudster imports the goods from an exporter in another Member State zero-rated (i.e. the exporter does not pay VAT), the fraudster then sells the goods to the purchaser, whereby the purchaser pays the price of the goods plus the VAT due. By law, the fraudster/importer then has to pay the collected VAT to their Government, however, they disappear keeping the VAT. A more complex example of this is 'Carousel fraud', where several businesses are involved and the goods are sold many times to numerous companies. The estimated lost revenue of this type of fraud is huge, sometimes exceeding the annual central budget of the European Union. In addition to this, of course, are the costs of administration trying to contain this crime. There have been a number of measures introduced by Member States in an attempt to eliminate Missing Trader Intra-Community VAT fraud that are generally shown to be unsuccessful. There is also much debate over the introduction of new measures to fight this fraud. However, from the research conducted and the current and proposed measures analysis in the paper, it appears to be clear that all of the debated measures require significant structural changes to the current European VAT system, and remarkably they still do not necessarily eliminate the problems, and in some cases potentially introduce new types of fraud. Therefore, undoubtedly, the way forward is to apply current IT progress to eliminate the crime.

**Keywords:** Missing trader intra-community vat fraud – e-vat – taxation – EU vat – tax administration – e-governance

# **Measuring e-Government: The Case of e-Government Across the 27 European Union Member States. A Comparative Measurement of the Progress of Online Services Delivery Using Multi-Criteria Analysis (MINORA)**

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**Abstract:** Governments across the 27 European Union member states face the challenge of responding to public demand for more responsive, efficient and effective services. E-Government based on the principle of providing services via internet at any time to the citizens and companies. The rapidly growth of electronic government gave to the 27 EU member states the possibility to correspond more effectively at the needs of citizens providing more valuable services. In this paper we analyze the web based services which have been developed by the 27 European Member States. Besides a comparative measurement of the progress of online services delivery is presented using Multi-criteria Analysis (Multi-criteria Interactive Ordinal Regression Analysis-MINORA).

**Keywords:** Web based services, e-government, internet, sophistication levels, Multi-criteria analysis

# Case Study: e-Youth City Council Project an Alternative e-Government for Young People

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**Abstract:** This article presents an explanatory analysis of an e- Youth City Council project held in the town of Sant Andreu de Llavaneres, Catalonia, during the year 2008. The main objectives of this programme were to increase citizen participation, improve good governance and through it, the possibility of consolidating and strengthening democracy by ICT use. This case study was based on a survey of 628 young people aged between 14 and 18. The aim was to motivate and enable them to play an active role in politics and to take up positions of genuine authority and responsibility, within local decision making, as pre-voting citizens. In this way, the young people engaged to develop all stages of the electoral process, participated in an e-voting system and were empowered in local government for 15 days. In this case polity was translated into practice and created a successful partnership between young citizens and the local political parties. The focus of this ICT research was, basically, which tools the youngsters used and the influence it had on electorate participation. In this way, the ICT acquired a new perspective relating to this study group who are considered a generation raised in a computerised era and who are leaders in the fields of innovation and communication, used as a common tool in their social life and work. The analysis is described and evaluated by explanatory variables such as; population, age, ICT use and access, number of voters and abstentions, the *ajuntamentjove.cat* website, political party blogs, electoral campaign spots and meetings, the electronic voting system and finally the video “ Youth Government Constitution” broadcast by internet into the school classroom. Electronic voting has been incorporated as a pilot test, consisting of a voting system of closed lists with a choice of up to two preferential candidates.

**Keywords:** e-Government, young citizens, participation, ICT, democracy and policy, e-voting

## **ISEL: Private Companies Collect e-Taxes**

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**Abstract:** In 2008 the State of Geneva modified its regulation on taxation at source in order to collect electronic fiscal data from employers. Indeed the latter provide data on their employees directly to the tax administration (AFC) and furthermore pay taxes to the State on behalf of their employees. They subtract the corresponding amounts from employees' income and refund that money to the fiscal administration. The taxation at source system is applied to foreigners who work in Switzerland or who receive Swiss pensions, to people who live in Geneva but work in other Cantons, as well as to performers, artists or speakers who work occasionally in Geneva. More than 12'000 companies and 117'000 employees are concerned by the scheme, and large companies provide data on several thousand employees. In the past these files provided by employers were handled semi-automatically by the AFC (at best). The new system (called ISEL for Impôt à la Source En Ligne) offers employers two electronic channels to provide data on employees: file transfer (.XSD) and internet e-form. This case study describes the ISEL project and its context, and discusses the issues raised by the introduction of the e-taxation system. On the human side, the paper takes a qualitative approach, based on interviews of various stakeholders involved in the project. They were asked questions on ISEL's functionality, usability, performance, and so on. On the technical side, the paper presents the architecting principles of the e-government approach in Geneva (Legality, Responsibility, Transparency and Symmetry) and the workflow that was implemented on top of AFC's legacy system.

**Keywords:** Private public partnership, tax collection, distribution of e-services, e-government program, e-government project, data exchange, architecture principles

# **The Projection of the Online Platform for Dissemination of the Environmental Information, Support the e-Governance Implementation in Romania**

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**Abstract:** The e-Governance process in Romania, as an unique access point to services and information from institutions of the central and local administration, is a long-time span program by which the Government of Romania aims to promote transparency, to improve administration by reducing costs and bureaucracy, to ensure wide accessibility to information and public services, regardless of time and place, to prevent and fight corruption by electronic means. To support the e-Governance implementation in Romania regarding the dissemination of environmental information at national level companies has been created a partnership between the National Institute of Statistics and three universities from Romania, in the form of an applied research project, for the projection of the public platform respecting on the smooth dissemination of environmental information at the level of the entire society - PPDIM. The authors of this paper are directly involved in conducting research activities. This paper describes the stage of scientific and technical achievements of the theme addressed at the national and international level; contribution to the development of knowledge in the field, including novelty and complexity of the solutions proposed; the general and specific objectives for achieving the purpose; viability and risks of research; the social, economic and environmental impact generated by the public platform online.

**Keywords:** Online platform, environmental information, e-governance, Romania

# **New Software Tools for Internal Control in the Private Sector: Can They Work in Government?**

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**Abstract:** The Sarbanes-Oxley (abbreviated as SOX) Act in 2002 was enacted by the U.S. Congress in reaction to a series of major corporate and accounting scandals. The act established new standards for U.S. public company boards, management, and public accounting firms. The passage of the act produced a bonanza for consulting firms and software vendors but recent studies suggest that SOX compliance efforts have often failed to deliver the expected outcomes. In particular, the dedicated software tools are largely a disappointment. Despite a somewhat dismal performance, SOX software tools have been advocated for use in government as a means of fraud prevention and enhanced security and will most likely receive greater attention in light of the recent financial crisis. SOX compliance software tools can be broadly categorized as emphasizing one or all of the following: groupware, visual modeling, financial analysis, data mining, reporting, workflow, knowledge base, templates, training, and unstructured data management. Typically, the software uses check lists, code analysis, best practices reviews, document scanning and security policy review against a SOX fulfillment template, and other techniques to make recommendations to achieve SOX compliance. The paper addresses the issue of the application of SOX compliance software to government operations, in particular within the context of a G2G eGovernment strategy. Although processes in government are often similar to those in the private sector, the differences are significant. For example, transparency in governmental operations may be at odds with the closed nature of internal control accounting found in the private sector. Moreover, the traditional audit function (of which SOX is an extension) has a financial fraud orientation in the private sector whereas governmental audits have an additional focus on security and ethical behavior. The paper contains a delineation of software approaches to SOX compliance along with an analysis of the relative failure of each. In addition, the paper contains an exploration of the SOX effort, a classification of SOX software tools, and a discussion as to the potential use in governmental applications.

**Keywords:** Security, internal control, sarbanes-oxley, fraud, G2G

# Requirements Analysis for an e-Government System to Support Multi-Organisational Collaborative Groups

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**Abstract:** We present a conceptual architecture for a Group Support System (GSS) to facilitate Multi-Organisational Collaborative Groups (MOCGs) initiated by local government and including external organisations of various types. Multi-Organisational Collaborative Groups (MOCGs) consist of individuals from several organisations which have agreed to work together to solve a problem. The expectation is that more can be achieved working in harmony than separately. Work is done interdependently, rather than independently in diverse directions. Local government, faced with solving complex social problems, deploy MOCGs to enable solutions across organisational, functional, professional and juridical boundaries, by involving statutory, voluntary, community, not-for-profit and private organisations. This is not a silver bullet as it introduces new pressures. Each member organisation has its own goals, operating context and particular approaches, which can be expressed as their norms and business processes. Organisations working together must find ways of eliminating differences or mitigating their impact in order to reduce the risks of collaborative inertia and conflict. A GSS is an electronic collaboration system that facilitates group working and can offer assistance to MOCGs. Since many existing GSSs have been primarily developed for single organisation collaborative groups, even though there are some common issues, there are some difficulties peculiar to MOCGs, and others that they experience to a greater extent: a diversity of primary organisational goals among members; different funding models and other pressures; more significant differences in other information systems both technologically and in their use than single organisations; greater variation in acceptable approaches to solve problems. In this paper, we analyse the requirements of MOCGs led by local government agencies, leading to a conceptual architecture for an e-government GSS that captures the relationships between 'goal', 'context', 'norm', and 'business process'. Our models capture the dynamics of the circumstances surrounding each individual representing an organisation in a MOCG along with the dynamics of the MOCG itself as a separate community.

**Keywords:** Computer-supported collaborative work, Group support, Local government, transformative e-government, multi-agency working

# **The Contribution of e-Government to the “New Conditionality” in Social Policy**

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**Abstract:** Governments are increasingly introducing new conditions for the receipt of social benefits and services. Such conditions represent a discontinuity from previous conditional policies. This “new conditionality” is notable in its linking of two previously separate social policy domains. Workfare – that is, the linking of income support to employment activity – is the perhaps the first and exemplary instance of the new conditionality. Receipt of cash benefits are also being linked to school attendance and absence of bad parenting, public housing is linked to appropriate social behaviour, and access to health services conditional on non-violent behaviour. Drawing on empirical studies of e-government projects, this paper examines the rise of the new conditionality in social policy and the contribution of e-government in enabling and enhancing such an approach. The paper observes the neo-liberal and neo-paternalism political rationalities that have given rise to such policies. Neo-liberal rationalities, which understand individual behaviour as responding to incentives and disincentives, see new conditionality as a way to induce behavioural change through financial incentives. Neo-paternalism, which seeks to regulate and monitor “failed” citizens, uses new conditionality as a means to induce what is regarded as appropriate behaviour. The paper argues that a consideration of this policy dynamic is not complete without recognising the contribution of networked information and communication technologies. Such technologies enable policy administrators to make the necessary data transfer needed for the implementation of such policies. The paper examines the way in which the new conditionality in social policy reconstitutes social problems, the administration of social policy and the relationship between citizens and the state. In particular, it is argued that such policies individualise social policy and social problems, regularly misunderstand the nature of social problems, and often undermine other public policy objectives.

**Keywords:** Social policy; public policy; networked e-government; conditionality

# **Spatial e-Government: The Development of a Soil Database for Science and Public Sector Usage**

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**Abstract:** The deployment of information systems that use and manage spatial data has become an essential application of eGovernment concepts. The importance of such systems results from the fact that many governmental decisions and provisions have traditionally related to the administration of land and real estate. Today, spatial data applications for environmental, agricultural, disaster management, infrastructure planning and numerous other domains are of paramount importance. In this short paper, we present the key objectives and the design of a recently started research project that aims to develop a national soil database for Luxembourg. We focus on the e-Government issues of this multi-disciplinary project. First, a short introduction into the role of spatial data for e-Government applications is given. Then, the project that is run in collaboration by a scientific institute and Luxembourg's Ministry of Agriculture, in charge of the soil survey, will be presented in its national and scientific context, and key challenges are discussed. Some first and preliminary observations finish this short paper.

**Keywords:** Spatial e-government, soil databases, GIS in public sector

# Harmonising and Exchanging Public Service Information Between Public Service Centres—Requirements, Constraints and Outline of a Solution

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**Abstract:** During the last years worldwide many initiatives come up to improve the quality of public services information. In Europe this process is mainly initiated by the European service directive. Germany actually has started a special project called D115, which shall provide a simple, quick and efficient access to public service information German-wide by using a single phone number 115. One technical problem in the context of D115 is the intelligent and quick routing of incoming calls to the enquiry offices, another is the technical integration and maintenance of the existing public service information repositories and a special semantic problem is the customer-orientated identification, description and the functional exchange of this knowledge between the participating organizations and public service centres. The general goal of this project is building up a virtual network of service centres with one face to the customer like citizens and enterprises, which ensures valid and quick access to information about all available public services in Germany. A crucial prerequisite to reach this goal is the semantic integration of the distributed knowledge about public services that can be found in different locations, organizations and formats mostly formulated in an inconsistent and sometimes misunderstandable manner. Given the multitude and diversity of public authorities, e.g. there are more than 12,000 municipalities in Germany, an intelligent and flexible solution to integrate these different service repositories is needed. During the last years different semantic approaches in general based on ontologies were developed to integrate distributed information about public services. These approaches mainly focus on formal and structural aspects of public service descriptions, i.e. which attributes or characteristics should be used to describe a public service. But concepts and solutions for an effective and valid harmonizing of the semantic differences are not available or address this issue only partially. In this paper existing approaches for describing public services are examined in regard to the requirements and constraints of public service centres and in the context of the project D115. Furthermore a new approach to define and build of a taxonomy of public services to support the process of providing information in public service centres is proposed. This approach is based on results of a research project of the University of Duisburg-Essen within the context of the D115 initiative in cooperation with the service centres of several municipalities in North Rhine-Westphalia. The project was designed to gather the requirements for a classification system of public services from the perspective of public service centres as well as to verify the feasibility of this approach in the service centre praxis.

**Keywords:** e-Government, semantic interoperability, D115, public service centre

# **Role of e-Information on the Ex-Ante Transaction Cost Facing Foreign Investors in Developing Economies**

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**Abstract:** Although the benefits of foreign investment inflow in developing economies are widespread; the share of FDI inflows in these countries is still low. There may be two reasons for this; first, it has been argued that weak institutions intensify bureaucratic procedures and corruption which both act as hurdles for investment in these countries. Secondly, foreign investors have no full information on the opportunities and incentives in these countries. Entering a foreign market involves costs of information search and entry procedures which can be conceived as ex-ante costs. Ex-ante transaction costs can be all costs incurred for setting up the business venture and may include negotiation costs and other costs of obtaining government authorization and approval for the transaction. Excessive bureaucratic procedures delay business processes, permits, licenses and thus in totality increase transaction costs on the investor's side. Such costs may be related to information search on general investment environment and entry procedures. Both private and public information are relevant for investors' investment decisions. We argue that electronic information can bypass some of these barriers through providing an efficient and effective information access on business environment and entry procedures. It allows online transactions of submitting relevant documents such as business permits, licenses, land and building permits and working permits. In addition, electronic government allows investors to track the status of their applications without any frequent visits to the public offices. The purpose of e-information in this case is to minimize investors' transaction costs associated with information search and entry procedures. This paper has two main contributions. First, extending the existing literature on the influence of e-government on Transaction cost specifically focusing on ex-ante costs related to information search and entry procedure facing foreign investors in developing economies. Secondly, presenting a conceptual framework in which empirically testable hypotheses could be drawn.

**Keywords:** e-Information, agility, ex-ante transaction cost, developing economies, foreign investment inflow

# **Towards an Interpretive Framework for e-Government Applications Evaluation in a Developing Country That Support Learning**

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**Abstract:** Public sector in Malaysia invests a large amount of resources in e-government. But benefits from implementing e-government applications are not that clear due to the complexity of its objectives and development process. In general e-government involves the transformation of public sector internal and external relationships through net-enabled operations, information technology and communications to optimize government service delivery, constituency participation and governance. E-government is about having centralized yet distributed operations to maximize efficiencies, productivity and service delivery. Its development and implementation involves changes in work processes, relationships between a number of related agencies, technology transfer, and changes in work culture. At the same time e-government concepts, application requirement and technology are evolving. In such a situation e-government applications are subject to a high risk of failure and unsustainable. Sustainability of e-government applications is important especially if the service offered is unique and continuous. In this case on-going learning through the support of feedback from development and implementation of application is necessary. Evaluation systems can provide feedback necessary to support the required learning process. Knowledge is also necessary to support learning. Previous study shows that evaluation is also concern with knowledge creation. Thus knowledge management is relevant in designing e-government evaluation systems. Evaluation tasks need to be done on-goingly. Changes in evaluation practices in terms of approaches, methods and techniques are necessary based on learning that takes place. An interpretive e-government evaluation framework is useful in order to evaluate e-government application on-goingly. This paper proposed an interpretive framework for e-government application evaluation. The framework is developed after a critical analysis from e-government evaluation, information systems (IS) evaluation and evaluation research literature. Its development makes use of system life cycle, organisational learning, knowledge management and interpretive evaluation framework from previous literature. The framework can be potentially used as a tool to conduct better e-government evaluation especially in developing countries. Further research is needed to validate the usefulness of the proposed framework. Findings from the fieldwork could be useful for further improvement and refinement of this framework.

**Keywords:** e-Government application, e-government evaluation framework, interpretive evaluation framework, system life cycle, knowledge management, organisational learning

# **Use of Business Intelligence Tools for Improving e-Government Processes - Case Study: Process of Graduation in the University of Tehran**

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**Abstract:** At the turn of the century, although eGovernment services present through integrated information system and portals in developed country but the various problems in developing country leads them to middling solutions. Particularly, the access problem caused designing Front Office. It helps citizenship to access the whole requirements via "one stop shop" office and free from to refer various service offices. Sometimes, these front offices are not being able to use of integrated information system therefore the most of their activities are demonstrated offline. This paper is based on case study about process of graduation in the University of Tehran. We seek to explain the previous graduation process and its difficulties and then, we will review the possible solutions using the common concepts and techniques in e-government discussions. Then, we will consider how to implement a special solution which makes emphasis on the application of business intelligence tools in launching a public service. Afterwards, we will describe the possibility to use this solution in solving similar problems as e-Government services.

**Keywords:** e-Government, public service, front office, business intelligence tools, one stop shop

# **Fez e-Government Project: An Initiative Transforming Scientific Research to Value in Morocco**

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**Abstract:** Information and Communication technologies (ICT) are spreading worldwide and continuously changing facets of modern life. Yet the digital divide still persists with developing countries lagging behind. The low integration of ICT in developing countries restricts the opportunities of using and applying ICT in development. This paper presents a case study of ICT development in North Africa. It shows how the Fez e-Government Project (eFez) generated through a scientific study and used it to transform and aid Morocco's development challenges: organizational misbehaviours and ills of bad governance in local government offices.

**Keywords:** e-Government; fez e-government; back-office automation; records computerization; records management; public value; intellectual capital

# Failure to Transform: The Gap in e-Government Stage Models

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**Abstract:** Stage models are a popular instrument for describing and guiding the development of e-government initiatives. However, recent research shows that although stage models describe past developments quite well, few to no organizations have yet been observed to have gone through all stages. We analyzed various stage models to identify what they include in the highest stage they foresee and found four general characteristics of the mature stage of e-government. Based on the characteristics, we explored a case to identify the challenges that government organizations encounter when trying to achieve the mature stage that is described in the models. We found that the mature stage is often defined in a linear model towards an ideal situation, providing little insights into how to overcome the difficulties that organizations face when trying to achieve the highest – mature or transformed – stage that stage models describe. We suggest that stage models should define their mature stages clearer and identify the stages in which organizations ready themselves to transform their culture, organizational structure and political guidance before they can be considered to be in the mature stage. Furthermore, the mature stage should not be seen as a static position, but should possess characteristics that support the ongoing process of improving the public sector. We recommend that further research is carried out on the gap between the (descriptive) stages – that are often IT driven and focus on organizational characteristics – and the normative stage which envisions a complete change in the character of the public sector.

**Keywords:** Stage models, e-government, transformational government, failure factors, transformation

# Human Capital Challenges for Sustainable e-Government

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**Abstract;** Several countries around the world are attempting to revitalize their public administration and make it more proactive, efficient, transparent and especially more service oriented. To accomplish this transformation, governments are introducing innovations in their organizational structure, practices, capacities, and in the ways they mobilize, deploy and utilize the human capital and information, technological and financial resources for service delivery to citizens. The results of the United Nations e-Government Survey 2008 indicate that governments are moving rapidly forward in e-government development around the world. Amongst all these, the biggest challenge looming in near future for the Governments will be mobilisation, deployment and utilisation of human capital. The *Bureau of Labour Statistics* and the *Department of Commerce* of the government of the United States use a classification scheme that includes two main classes of workers: core IT workers and IT related workers. The former consists of four occupations: Computer Scientist, Computer Engineers, Systems Analysts and Computer Programmer. The latter in contrast consists of some 23 occupations which use ICT intensively. The Governments and ICT vendors will require all these 27 categories plus some more in order to sustain current and future e-government initiatives. This paper reviews the growth trends of e-government deployments and hence the projected demands for human capital. Against this backdrop, it reviews the availability and plans for building the required human capital, by ICT industry, educational institutions, and Governments themselves. The review covers global trends and it specifically covers the trends in India. In addition, the paper discusses additional challenges arising out of the need for transformation of governments and rising expectations of citizens. Finally, the paper also discusses the likely human capital challenges for ICT vendors and especially those aspiring to participate in PPP model of e-government implementations.

**Keywords:** e-Government, human capital, PPP, capacity building, transformation

# **Analysis of UK Parliament Web Sites for Disability Accessibility**

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**Abstract:** The growth of the Internet has led to an increase in the number of public services offered by U.K. government entities on their Web sites. A variety of consumers use e-government sites, and those individuals with disabilities are guaranteed the same access government sites under the U.K.'s Disability Discrimination Act (DDA) of 1995. This law provides equality in access, and implements penalties for non-adherence to the law. Industry standards also exist which helps site developers to create better site accessibility. However, despite both standards and legal regulations, total openness of sites for people with disabilities is still not widespread. The purpose of this study is to examine the level of accessibility of a randomly selected sample of 130 members of the U.K. House of Commons. Each site was analyzed using an online software tool –Truwex - to determine if they met industry Web Content Accessibility Guidelines (WCAG) levels 1.0 and 2.0 standards and DDA law. The results showed that the majority of the sites did not meet either guidelines or legal mandates. Many of the sites displayed similar precedents when it came to the types of non-compliance, and could easily improve compliance with minor changes.

**Keywords:** Accessibility, disability, e-government, WCAG, W3C, U.K. disability discrimination act

# Governance in Rural India: An Empirical Study

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**Abstract;** Before the advent of the information technology era, rural India was reeling with problems of unemployment, illiteracy, poverty, lack of communication infrastructure, transport connections and unavailability of the necessary infrastructure. Furthermore, inefficiency of government, lack of transparency of information on government policies and services and primitive mechanisms of complaint handling, low education level among citizens, prolonged absence of self-sufficiency had created an encompassing dependency of rural citizens on local bureaucrats. Rural citizens used to visit government offices and stand in queues to avail the services and information in the traditional system. In the current era, recognizing the power of e-governance, rural citizens are viewing it as an ideal tool to connect them with government to share their problems. ICTs have opened a new vista for reaching out to the people at the lowest economic level. Currently central and state Governments of India have adopted e-governance to improve the efficiency of the organization and reach out to the citizens, to share knowledge which leads to greater satisfaction. In this paper, the authors have tried to analyze the impact of e-governance service project (TARAhaat) on the life of rural citizens of India. In rural area, citizens are in search of transparency, efficiency, and effectiveness, reliability to get their work done. Authors have coined a quantified term named 'good governance services index'. Transparency, affordability, efficiency, reliability, and effectiveness have been observed to have significant role to improve the quality of the rural life. Good governance services index' represents the quality of the information service in e-governance era.

**Keywords:** e-Governance, quality of information, good governance services index, rural citizens

# From Student Smartcard Applications to the German Electronic Identity Card

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**Abstract:** This paper deals with the German electronic identity (ID) card, which is to be introduced in November 2010. Apart from enhancing the possibilities for identity checks by providing biometric identifiers, the new ID card will enable citizens to prove their identity to service providers and administrative authorities over the Internet. This is going to open up a variety of applications in e-Government and e-Business. While the national ID card is yet to come in Germany, similar concepts have already been realized at a smaller scale: At Technische Universität Darmstadt (TUD), a student smartcard was introduced in the 2005/2006 winter term. It offers the students a digital proof of identity, which can be used to access electronic resources and services provided by the university. Thus this “TUD card” works as an electronic ID card for the university campus, which makes it a good starting point for extrapolating this scenario to a nationwide ID card. The goal of our work is to compile and analyze the potential applications of the upcoming German electronic ID card. We approach the issue by categorizing the applications according to their purpose of use. For each category, we start with examples of matching TUD card applications. Then we generalize from campus-bound use to the scenario of a nationwide ID card and describe application possibilities in e-Government as well as e-Business. As we specify potential applications for the ID card, this work is relevant to private and public service providers and may encourage them to prepare for the upcoming introduction of the ID card. Our work also aims to increase the acceptance of the ID card among the German citizens. We show how the ID card increases the usability of existing online services and how it allows for new services which have not been feasible so far.

**Keywords:** German electronic ID card, e-government and e-business applications, identity management

# XML Schema Design and Management for e-Government Data Interoperability

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**Abstract:** One-stop public services and single window systems are primary goals of many e-government initiatives. How to facilitate the technical and data interoperability among the systems in different government agencies is a key of meeting these goals. While many software standards, such as Web Services and ebXML, have been formulated to address the interoperability between different technical platforms, the data interoperability problem remains to be a big challenge. The data interoperability concerns how different parties agree on what information to exchange, and the definition and representation of such information. To address this problem, the Hong Kong government has released the XML Schema Design and Management Guide as well as the Registry of Data Standards under its e-Government Interoperability Framework initiative. This paper introduces how the data modelling methodology provided by the Guide can be used to develop data interfaces and standards for e-government systems. We also discuss how the Macao government has formulated their data interoperability policy and has applied the Guide in their situation.

**Keywords:** e-Government data interoperability, XML schema

# **New Index for Measuring Feedback and e-Participation Effectiveness of e-Government in Russia**

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**Abstract:** The group of scientists from Institute of System Analysis of Russia Academy of Science and Moscow Institute of Physics and Technology developed the way to measure the level of effective communication between citizens and government by means of e-government. The model represented in this paper is a user-centric, service-quality based index for evaluation of separate Executive Bodies e-Government strategy implementation. The composite index KI\_OS is designed to measure the level of feedback opportunities (e-participation) development for the Federal government web-sites. KI\_OS consists of two indexes: Availability Index and Quality Index. The 83 Government web-sites were evaluated under the KI\_OS method. Based on graphic interpretation of Composite index KI\_OS, we observed that the 86% of the sites possess low-level feedback opportunities. Further investigation of Russian Government web-sites resulted into the monitoring and evaluation system development. We also conducted several experiments to find out what was the actual strategy for e-government development in Russia. For example, this year a considerable amount of executive bodies were restructured. We monitored changes of a representative selection of their web-sites and traced the evolution of feedback opportunities and actual feedback activity. We developed a hypothesis of Russian e-government development, main underlying causes, features and problems.

**Keywords:** Expert evaluations, monitoring, e-government, benchmarking, e-participation, user-centric model

# **Towards an Understanding of the Factors Influencing the Acceptance and Diffusion of e-Government Services**

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**Abstract:** Governments in emerging nations are relying on information technology as an important tool for their sustained future development. Hence, it is an imperative to understand and influence user's acceptance and diffusion of e-Government services. This study makes use of the electronic tax filing and payment system in Mauritius, as an example of an e-Government service, to integrate two leading models (TAM and DOI) in order to explain user's intention to adopt and continue to make use of the electronic tax system. The main survey instrument, a structured questionnaire was used to capture the perceptions and intentions of users of the system. Moreover, locally this area is a fairly un-researched one and will be explored in light of the context and culture of Mauritius. This paper is expected to contribute to the literature by explaining the factors which affect e-government acceptance and diffusion in the perspective of an emerging economy; and is expected to identify those factors which practitioners (and the Government) could consider in their endeavour to promote the acceptance and diffusion of e-Government services.

**Keywords:** e-Government, TAM, DOI and emerging economy

# Channels of Contact with Revenue: Is the Telephone Irreplaceable?

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**Abstract:** The Research and Analytics Branch of the Irish Revenue Commissioners has built up an expertise since 2006 in survey execution, analysis and reporting. Much useful information has been assembled on both the Small/ Medium Sized Enterprise (SME) and Pay As You Earn (PAYE) sectors. The latest project is a further postal survey of SMEs. The main objectives of this survey are to evaluate aspects of *Customer Service* and to inform our understanding of the factors that influence taxpayers' compliance. This paper examines the results obtained with particular attention to some specific aspects of e-government, such as channels of contact used and frequency of contact with Revenue, in line with Revenue's Statement of Strategy (2008), which aims to increase the usage of e-channels. The results obtained are directly compared to those of a similar survey carried out in 2006. Moreover, the methodological aspects of conducting such surveys are described. As with the previous surveys, the questionnaire was designed by the Research and Analytics Branch. The survey was carried out using a random probability method, to allow for the use of inferential statistics with the results. A sample size of some 2,000 SMEs registered for Value Added Tax (VAT), i.e. Sales Tax, was chosen as a balance between cost effectiveness and statistical robustness. The questionnaire was posted on the 1<sup>st</sup> of December 2008 and a reminder was issued in January 2009. The overall response rate for the survey exceeded 62%. The data has been collated, assessed and examined using a range of analytical techniques. A data mining phase was also carried out to profile the results and to develop insights into a number of issues relating to customer service and in particular the channels of communications between SMEs and Revenue. Furthermore, the results were compared with those of the previous survey to analyse changes in customers' behaviour. The survey was designed to gain an understanding of the channels of contact between SME customers and Revenue. These channels are *telephone, Revenue's online service, letter/ fax, e-mail, calling in person to a Revenue public office and website*. For each channel, questions on usage rates and satisfaction were formulated. Comments provided by respondents further add to the richness of the data. An important outcome of the previous survey was that customers' satisfaction with service delivery both at the overall level and specific to various communication channels was high. However, the preferred method of contact was still the telephone regardless of the availability of electronic communication channels. The results reported here represent the first chance to measure if this behaviour has changed. The results presented in this paper allow important conclusions to be drawn and represent a step forward in measuring the effectiveness of customer service initiatives over time.

**Keywords:** Ireland, revenue, surveys, customers, communications, e-government, segmentation, other

# Monitoring of Cross-Organizational Business Processes in Public Administrations

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**Abstract:** Due to the heterogeneity and dynamics of the European Union, more and more public administrations within Europe are challenged to work together and to adapt continuously to rapid technological changes. New legal settings, modernization, the need for improved quality of service, the search for competitive advantages and innovations as well as rapid technological advances create a new dynamic and complex administration environment, which requires flexibility and mobility from European public administrations. For these reasons different governments have to cooperate in order to modernize and innovate public administrations, to provide citizens and industries with new service offers, to encounter the contemporary prevalent high cost pressure, to reduce the current administrative overheads as well as to stay globally competitive and keep Europe attractive as a place to live, work and invest. This increasing level of cooperation between public administrations on national, regional and local levels requires methods to develop interoperable e-Government systems including modelling, implementation as well as monitoring and controlling of cross-organizational business processes. In this respect the opening of an organisation's borders is no longer regarded as a necessary evil, but rather as an opportunity with strategic importance within the European Union. Our research revealed that public administrations (PAs) have a persistent need of being aware of their processes in order to measure their electronic cooperation more effectively. Main objectives of those monitoring efforts are related to time and cost indicators. We extract those requirements and describe adequate monitoring approaches. In contrast to the design and implementation of cross-organizational business processes, monitoring and controlling of these processes is a research area under development. This paper presents an approach to measure cross-organizational e-Government performance and provides the basis for further research in this field. The approach should enable PAs to implement innovative structures, to save time and costs and after all to take a step forward to an effective and efficient administrative practice.

**Keywords:** Monitoring, cross-organizational business processes, interoperability, e-government, public sector

# **An Exploration of the Citizens Insight System: A Case Study**

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**Abstract:** E-participation involves citizens reporting problems, opinions and solutions to governmental organisations. An increasing number of citizens taking part in such activities may lead to information overload on the government side. Such overload may cause response problems, which are disappointing and discouraging to the citizens. Our multidisciplinary and international research team, working towards the solution of this problem, developed the “Citizens Insight” prototype system. The prototype environment includes one municipality and two types of citizen feedback, specifically road deficiencies and garbage collection. The “Citizens Insight” system consists of a knowledge model (ontology), built by experts in the field along with ontology engineers. Algorithms based on this model parse the citizens’ reports and tag related and semantic words, enabling data mining, clustering of the reports and hidden information extraction. Thus, the issues that are reported are clustered, the co-references are eliminated, and the results forwarded to the appropriate authority accordingly. The results of applying the “Citizens Insight” system in this context were deemed satisfactory and are presented in this paper.

**Keywords:** e-Government, e-Participation, i-Participation, information extraction, local government

# **Dynamic Case Weighting - Using the Data we Have to Manage the Courts**

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**Abstract:** Modern court case management systems contain a wealth of data that can be used not only for historical analysis but also to active case management. It is important to measure complexity so that case weights can be projected and adjusted to balance court case workload, anticipate case delays due to an increasingly difficult matter, and to determine jurisdictional and geographic caseload patterns. This paper explores the possible use current automated court case management system information to dynamically adjust the individual case weights and the total case weights for a judge, department, or court jurisdiction.

**Keywords:** Courts, case management, complexity, weighting, workload

# QUIMBY: An Innovative Open-Source Solution for e-Democracy

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**Abstract:** Project eDem1.0, coordinated by the municipality of Rome and financed by the Italian Ministry for Innovation during the period March 2006 to February 2008, has aimed to apply cutting edge Internet-based technologies (social networking, user-generated content, etc.) to enhance the processes of participation and consultation, both between citizens and government administration offices, as well as among such offices themselves. Sociological studies, expressly conducted by the universities of Pisa and Rome, have provided the basis for the innovative means developed in the project for involving citizens in online participation in government. The software platform for implementation of such goals was developed for the most part at the ISTI Institute of the CNR in Pisa. Such development has been guided by the specific needs and wishes of the coordinating institution, to which a customized version has been provided. In detail, the platform aims to supplement traditional means of citizens' participation in government (meetings, round tables, etc.) through Internet-based channels of communication and interaction. The result of the work is the open source software application 'Quimby' released under the GPL license. The main features implemented in Quimby are: reporting problem issues and possible solutions; pinpointing problems on road or satellite maps; transmitting additional documentation on problems or proposals for solutions; rating specific proposals; displaying graphic illustrations of the administrative procedures and status of proposals. Initial testing of the software was begun within the framework of the Rome *Bilancio Partecipativo del Municipio XI* (Participation Budgeting of District 11). The current version is freely available under the GPL license for download at <http://www.domoticslab.it/quimby>. Other, customized versions have been provided to and used by the region of Lazio and the township of Pescara.

The software is moreover highly adaptable for use in many other contexts as well. For example, it can be easily reused in different programmes calling for other models or levels of involvement (information, communications, consultation, collaborative planning, decision-making and so forth).

**Keywords:** Participatory budgeting, e-democracy, Symphony, Quimby, open-source, eDem 1.0

# **IT Alignment in Malaysian Public Sector: e-Syariah as a Case of Study**

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**Abstract:** IT alignment has been receiving a considerable attention amongst IS scholars and researchers. Despite the growth of IT alignment literature, further review indicates that most of the studies are carried out in either commercial or private organizations. Drawing on the previous literature on the differences between public and private sectors, the effects of four antecedents of IT alignment namely; shared domain knowledge, stakeholder relationships, centralization and formalization are examined. It is further argued that high level of IT alignment in government sectors contributes towards the improvement of government's performance. Using case study on the implementation of E-Syariah in Malaysia, researcher finds out that all antecedents except centralization and formalization have direct impacts towards IT alignment practice in public sector, which consequently improve the delivery of government services to the public.

**Keywords:** Antecedent, IT alignment, e-government, e-Syariah, public sector, Malaysia

# **Aligning Electronic Government and Public Administration Reform Programs - Process, Tool and Case Study**

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**Abstract:** A major issue in organizations including public organizations is how to ensure that investments in Information Technology (IT) optimally deliver the expected value for stakeholders. Since most organizational transformation agenda in the government are articulated and implemented under the Public Administration Reform programs, and IT projects in government are increasingly associated with e-governance initiatives, the need to align reform and e-government programs arises. This paper shows how the Strategic Alignment Model (SAM) may be adapted for aligning public administration reform and e-government strategies. It shows how to partition strategies into domains equivalent to the four classical SAM domains and presents: (i) metrics for evaluating current level of alignment between the reform and e-government program, (ii) a process or sequence of steps to achieve desired alignments between the four domains, (iii) our experience in the application of the process in project involving the alignment of the e-government program and the reform roadmap of a city state in South-East Asia, and (iv) some features of the tool that has been developed to support the alignment process. Finally, the paper highlights our ongoing work in this area.

**Keywords:** Aligning e-government and public reform, strategic alignment, strategic alignment model, strategic alignment tool, e-Macao

# Developing Measures of e-Government Progress Using Action Research

**Mick Phythian, Ben Fairweather and Richard Howley  
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**Abstract:** From the mid 1990's onwards governments around the world set targets for the number and type of services to be delivered by electronic means but little appeared to have been done about measuring the quality or usage of the methods of delivery. Work by the researchers set out to confirm whether this was the case and in the process try to uncover or develop useful metrics. The research process envisaged a number of sequential steps with some parallel background work. Initially the work consisted of an in-depth review of the literature covering service delivery in the public and private sectors, the politics and rationale behind e-government and whether any attempts were being made to measure quality and usage from the citizen's perspective. The second step was to generate a brief online questionnaire (less than fifteen questions) for practitioners in the field. In parallel, a weblog was created to promote ideas that were revealed during the course of the literature review and from feedback collected at meetings or events. The weblog also linked to the questionnaire and provided background information about the research, including the ethical guidelines used. The intention was to establish active interest in the potential solutions, whilst maintaining dialogue around the rationale for doing the research. The lead author, who is also working in the field of e-government, is employing the blog, along with giving conference and interest group presentations to promptly feed back into the community of practitioners any learning, which demonstrates the action research approach through its cycles of investigation, analysis, reporting and (hopefully) changed behaviour. Surveys were completed by individuals from a range of local authorities in the initial four months of the project. The researcher gained an increasing profile for the research by maintaining the blog and promoting it regularly. However, this did reveal reluctance by many to enter into a public dialogue, although responses were to be obtained offline, face-to-face, or through other channels. The researcher used conference presentations to gather instant feedback from practitioners regarding metrics identified in the literature, survey and blog. The responses confirmed the researchers' suspicions about the lack of metrics for both quality and usage, the need for them and the possibility of using citizen satisfaction as one. This research shows that the iterative Action Research approach is a viable methodology when developing systems that require input from a large population of practitioners to test viability. This form of research also enabled the researchers to feed learning into the practitioner community much quicker than is usually possible.

**Keywords:** Action research, e-government, measures, metrics

# **IPIS: Interoperability Practical Implementation Support for e-Government Interoperability**

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**Abstract:** During the last few years, e-Government interoperability has been a fascinating research and development area in order to facilitate the seamless exchange of information across agencies. Many researches put the focus on the designing/adopting of Government Interoperability Frameworks (GIFs) and of Enterprise Architectures (EAs) for implementing the interoperability. However, merely the GIFs and EAs would be insufficient as there are several strong obstacles and barriers on the road to its achievement in the field of e-Government, such as human, semantic and technical. Therefore, the successful implementation in government interoperability needs more practical and implementable approach. In this paper, we describe those obstacles and barriers with the solution and guideline to overcome them. We propose towards more practical approach exploring interoperability from three dimensions: Business, Semantic, and Technical. Our approach, is called 'Interoperability Practical Implementation Support (IPIS)', considers the adoption/development of integrated three components: a set of tools, an interoperability repository, and a knowledge based system. We design a model of the tools in IPIS covering the three interoperability perspectives; a supporting tool in modeling/specifying business processes of an organization based on UMM, the semantic tool for standardizing/harmonizing data based on UN/CEFACT CCTS, XML Naming and Design Rules and Recommend 34, and the technical standards usage support tool. The IPIS also includes five interoperability repositories: business processes, data standardized sets, XML Schema standard, web services and technical standards. They are designed to support reusability and encourage interoperability at the implementation level. The knowledge based system integrates the knowledge resources that consist of a collection of best practice cases, ontological concepts in semantic technologies, and the related frameworks. The paper presents the overall methodology and the architecture of IPIS with the three components. By adopting the IPIS, the design, development and implementation of interoperable systems in e-Government can be practically addressed.

**Keywords:** Interoperability, e-government interoperability, interoperability tool, GIF, e-government

# Ontology Driven e-Government

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**Abstract:** This paper presents an approach to model ontologies for the e-Government domain as a basis for an integrated e-Government environment. Over the last couple of years the application of semantic methodologies and technologies in the e-Government domain has become an important field of research. A significant number of these approaches aim at automatic service discovery and service orchestration (Lu et al. 2004) (Crichton et al. 2007) by adding and utilizing semantic annotations to web services. In contrast to these approaches it was our idea to use semantic methodologies in a more forward-engineering manner – to create a semantic model first and to use this model e.g. for service selection but also as basis for the automatic generation of “intelligent” web forms. Thus the ontologies can be seen as a model that forms the basis of a Model Driven Architecture (Miller et al. 2001) approach to e-Government. That is why we call it Ontology Driven e-Government. The principle is rather straightforward. Every public service is semantically modeled and contains references to the required input elements. Any constraints on the service input element – also known as preconditions – can be expressed by semantic rules and evaluated by semantic reasoners. This allows for an automatic creation of (web) forms and interactive plausibility checks of data gathered from the user. Instead of scattering logic over numerous functions and procedures in all possible layers of an application, it is now consistently kept in the semantic model. Another key advantage of this approach is that the knowledge of public services becomes available in a machine processable form which allows for much more than just forms creation. Discovering the citizen's actual goal is one of these use-cases and is actually a very central and important step. When developing the idea of ontology driven e-Government it was one main idea to achieve a strong decoupling between the form solution and the backend. Such a decoupling can be achieved by transforming the input data into a common data interchange standard format, which was EDIAKT II (Freitter et al. 2006) – an XML Schema definition for the exchange of electronic documents between public authorities in Austria – in our case. Following this approach the input data can be consumed by any application supporting the data interchange standard EDIAKT II like the SOA-backend also proposed in this paper.

**Keywords:** e-Government, ontology, WSML/WSMO, goal orientation, form generation

# Multilevel Life-Event Abstraction Framework for e-Government Service Integration

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**Abstract:** One of the fundamental attributes of modern government service delivery mechanism is the ability to offer a citizen-centric view of the government model. Life-event model is the most widely adopted paradigm supporting the idea of composing a single complex service that corresponds to an event in a citizen's life. Elementary building blocks of Life-event are based on atomic services offered from multiple government agencies. Composite services are desirable mainly because of their added value to businesses and government agencies. This study found that the methodological mechanics of service integration, and in particular, the requirements engineering for services integration has been overlooked. It introduces a multilevel modelling framework for analysis and design of Life-event within the government service integration context based on the principle of abstraction. It also proposes a top down multilevel abstraction approach to model Life-event candidates and elicit their requirements and specification. This study explains the problem space of e-government service delivery integration, and stresses the ontology analysis and modelling as one of the essential requirements for modelling Life-events.

**Keywords:** e-Government, integration, life-event modelling, semantic ontology, e-services

# **Electronic Criminal Record in Greece: Applying e-Government Transformation Project Management Approach**

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**Abstract.** The implementation of eGovernment is a burgeoning phenomenon across the globe. It improves and enhances the infrastructures and services provided to the citizens and businesses. However, a review of the IS literature reveals the inability of governmental organisations to complete public information technology projects successfully. Unless governments learn to manage the government transformation projects, these e-dreams will turn into global nightmares. The shortage of studies on eGovernment implementation presents a knowledge gap that needs to be plugged. This paper describes and analyzes Greece's Ministry of Justice Criminal Record Information System (CRIS) where computerisation of the existing paper-based criminal record system took place and a web based system was implemented in order to provide citizens the possibility to apply electronically for their criminal record extracts. It is expected that the project will enable the Greek judiciary to be an eJustice system, and so create not only internal efficiencies and improve the benefits to citizens in terms of simpler and faster procedures, but more importantly facilitate the seamless exchange of information and resolve governmental interoperability issues. The CRIS project objectives in order to overcome the identified challenges of the current practices in criminal record service provision and the system design and use are presented. This paper develops the electronic Government Transformation Project Management (eGTPM) approach by compendiously presenting its set of concepts and then illustrates its application in the specific eJustice case. Finally conclusions and possible future enhancements are suggested. Our intent is to present an application of a goal driven project management methodology named eGTPM in order to use it as a methodological reference when navigating in the open sea of eGovernment project implementations. The successful implementation of the specific project indicates that the application of eGTPM approach could provide a solution to achieve government transformation objectives more effectively and efficiently.

**Keywords:** e-Government, e-justice, government transformation, project management, criminal record

# **e-Government in South Africa: Successes and Challenges in the Quest to Bridge the Digital Divide**

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**Abstract:** South Africa has the necessary structures, strategic, policy and legal framework of e-government and access to ICT services. The government has introduced the policies and strategies such as the so-called Vision 2014, and the “Batho Pele” (in simple English “People First”), to highlight as the purpose of public service the service of all the people of South Africa, and the provision and access to service and delivery thereof to anyone, anywhere, and anytime. There is also an appropriate legal framework spread over various legislation including the Telecommunications Act, the Electronic Transactions and Communications Act, and others. Several departmental specific initiatives are in place, such as the National Automated Archival Information Retrieval System; the National Identification System; the electronic filing of tax returns; and the system of e-procurement of government contracts. The country also maintains/introduced digital divide sensitive projects and ICT access platforms such as the UAFs, and ICT centres. South Africa, however, remains with challenges, some of them old, which impact on the efforts to bridge the digital divide. The challenges identified, include but not limited to, local language (and content) barriers; negligible ownership and /or access to computer and internet facilities; ICT illiteracy; insufficient and sometimes inefficient human capital. It is recommended that various remedial actions be undertaken to narrow the digital divide, including the full use of PCLs for improved and alternative ICT connectivity, and viable access projects in favour of poorer and low income communities.

**Keywords:** Batho-pele, powerline communication, broadband, digital divide; e-government, ICT, vision 2014

# The Effects of IT Maturity on the Political and Administrative Chains of Governance

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**Abstract:** The main objective of this article is to evaluate the effects of the organization's IT (Information technology) maturity (to what extent it master IT functions) on both political governance chain and the administrative chain and on the relationship between these two (the political and the administrative) bodies. This study is based on analyses of three case studies. The purpose is to generate fruitful understanding not to make generalizations for every political and administrative body. The analysis of our data indicates the higher maturity level on IT solutions, the stronger the effect on administrative capability. We introduce the concept of Electronic Man as a modernization of Administrative man. Electronic Man has not yet fully emerged in our organizations, but will probably show up in municipalities in the future and consequently contribute to an improved decision making foundation. The three cases have a high score on political capability, however the respondents find it hard to attribute IT effects on this capability. The greatest effects of IT are expected to be found in the administrative chain. This may in turn lower the costs of political participation and consequently increase the motivation for such participation. However, the potential for an improved basis for decision making by the implementation of IT is far from reached. Seen as a political system this may also make the "balance" between the political body and the administrative organization to be moved in favour of the administrative organization. This could make a foundation for weakened democracy as the political body could have its position reduced as a consequence of increase use of IT solutions in the administrative organization. To strengthen the position of the political body, one could use more actively and systematic Performance – and Competitive Benchmarking information in presentation of the cases from the administrative body to the political body.

**Keywords:** IT Maturity, Political and administrative chains, Electronic Man

# **Government Process Reengineering in Practice; A case Study of G2B Transaction's Interoperability Achievement**

**Aikaterini-Maria Sourouni, Harry Tsavdaris, George Kourlimpinis, Christos Ntanos and Dimitris Askounis  
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**Abstract:** Last decade research approaches have raised core issues of governmental process reengineering and e-government applications adoption. Interoperability issues also rise along with reengineering and a balanced solution is often sought. In Greece, various initiatives and projects have begun in order to reorganize and reconstruct the core of public sector and the provided services to Citizens, Enterprises but also other public sector organizations. This paper presents a sub-project currently under implementation in the Greek Secretariat General of Communication – Secretariat General of Information, with the title of “Reengineering of the legal and financial monitoring of advertisement of Public Bodies in Mass Media” in the scope of a major project of Government Process Reengineering of the Secretariat. Our project has modelled, redesigned and implemented the process of monitoring the co-funding of public advertisement in Mass Media in Greece. A web-based application has been also developed so as to efficiently manage the automated transactions and enhance the interoperability at all levels between the Secretariat, the Advertisers and the Public Bodies, offering a smooth and user-friendly integration of their activities, as well a fully automated control and data validation.

**Keywords:** Government process reengineering, interoperability, public advertisement, mass media

# Examining e-Government Project Failure Through Differing Theoretical Lens

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**Abstract:** E-government applications are large, high profile and risky public sector investments. Recent studies suggest that between 60 to 80% of e-government projects fail in some way. But these systems are not alone in being viewed as problematic and hard to judge in terms of performance. There is an on-going fascination with the apparent failure of systems in both the media and in the academic discourse. But what exactly is meant by the emotive term “failure”? It is so difficult to agree on its precise nature that commentators often choose to avoid addressing the issue directly and to couch their discussion of failure in terms of what is needed to achieve success. It is contended in this paper that careful consideration of what signifies failure needs to address the concept in direct terms rather than as the antithesis of success. The way that success and failure are perceived depends on the criteria being used to measure performance and one of the difficulties that arises in setting the performance criteria for an e-government project is factoring in the context in which it is situated. Systems failures are recognised as occurring from a complex interaction of technical and human factors set in a social situation. The development of an e-government application does not occur in isolation: the technical system development will be linked to a number of intended organisational changes and “the system” is the term used to encompass both. Ambiguity can result when the changes associated with the technology are assimilated with the parallel changes occurring through process re-engineering and institutional alignment. Setting relevant targets and assessing performance is difficult as judgement on success and failure can be highly subjective. The theoretical approaches adopted in the study of e-government project evaluation fall into three main categories - factorial analyses, systems approaches and interpretive studies – with the relevant analytical framework being applied primarily to case study or multiple case study evidence. In this paper, the theoretical constructs underlying the process of e-government project evaluation are explored by comparing and contrasting the three diagnostic approaches as applied to a particular case study: namely, a back-end government financial management information system funded by the international financing institutions and implemented by the Sri Lankan Ministry of Finance.

**Keywords:** e-Government; project failure; evaluation; diagnostic approaches

# European e-Government Identity Management Architecture Design and Evaluation

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**Abstract:** A key factor in preserving the rights of free movement of labour and goods in an eGovernment age will be the availability of cross-border identity services to give citizens and businesses equal access to eGovernment services across the EU. The main purpose of this paper is to present the research outcomes of a FP6 European project focused on the development of an Open Identity Management Architecture for cross-border identity services. The emphasis is put on the evaluation of the two trials, performed for demonstration and validation of the designed and developed IT solution. The first trial is devoted to the challenging aspects of the electronic cross-border citizen identity management and addresses the European Form E101 exchanged between the EU countries when an employer sends an employee abroad to work temporarily. The second trial covers cross-border business identity management and deals with e-procurement. The objectives of the research undertaken in the E101 and eProcurement trials, apart from the underlying proof of concept, were to provide knowledge about performing translation services between different Identity Management standards, and specific knowledge in the realms of identification, attribute provisioning, service discovery and authentication. The research scope included validation of the existing Open Identity Management Architecture specifications and testing the implementation of several Identity Management processes (Identification, Authentication, and Attribute Provisioning), theoretically examined and specified in the architecture development. Furthermore, through enabling the communications between disparate systems (Gateways, PEGS/Identity Providers, eTender applications) the technological insights were gained. The trials were subjected to both, technical and user acceptance evaluation, performed by an international group of academics, independent from the development, integration and deployment team. The paper focuses on the user acceptance evaluation. A qualitative approach is used, because it is considered more appropriate when trying to elicit user opinions regarding the results. The trial user acceptance assessment plan and evaluation methodology includes the following stages: preparing for the evaluation, managing the evaluation process, analyzing and reporting results. The focus group discussions are organized as interviews, involving all stakeholders participating in the trials implementation. The outcomes of the trial evaluation revealed that they were implemented according to the plans, and complied with the user requirements. They were useful in showing the potential of electronically-enabled cross-border Identity Management and therefore could be used as a mobilization vehicle for the required revision of the legal framework regarding the implementation of Pan-European eGovernment services.

**Keywords:** Identity management, cross-border e-government services

# The Evolution of Romanian Urban E-Government: 2006 – 2008

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**Abstract:** The general accepted opinion on the matter is that e-government represents an important direction of political and administrative systems' development within democratic states. When responding to questions as *how should e-government be implemented, how fast, by whom, on what dimensions, what goals should there be pursued* and so on and so forth, the answers significantly vary. In order to clarify these answers, it is imperative to take into consideration, besides theoretical debates, the successes and the failures of administrations all over the world. Many authors agree that e-government has developed five stages, each of them reflecting the degree of technical sophistication and of interaction with the users: simple information dissemination (one-way communication), two-way communication, service and financial transactions, integration (horizontal and vertical), and political participation. Starting from this model, the present research evaluates the evolution of urban e-government within Romania. The aim of the present research is to evaluate the evolution of the official websites of Romanian cities. The entire population of urban official sites is analyzed through the perspective of both digital government (public services throughout internet) and digital democracy (citizens' participation to the governing process throughout internet), for three consecutive years (2006, 2007 and 2008). Despite the quantitative progress that we witnessed (the number of cities having web pages was constantly increasing, from 145 in 2006, to 165 in 2007 and to 213 in 2008), we conclude that the progress is a modest one. Romanian urban e-government is closer to an incremental model of changing than to a transformational one. The accent is still placed on unidirectional communication, from administration to citizens, and not on services that could be offered to citizens or on citizens' participation in taking decisions regarding the community. Even this is a case-study it may be asserted that, despite theoretical promises of rapid and substantial changes e-government would generate, the reform of traditional administration is rather a step-by-step process.

**Keywords:** Romanian e-government, digital services, digital democracy, incremental change

# Deriving the Impact of Governmental Decisions by Mining Public Opinions

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**Abstract.** In this paper, we propose the application of data mining techniques towards capturing the public's opinion communicated online and concerning governmental decisions. The objective of our study is twofold and focuses on understanding the citizen opinions about e-government issues and on the exploitation of these opinions in subsequent governmental actions. Currently, there exist numerous social web sites where people interact with each other by posting messages, exchanging opinions, comments and so forth. Some of such sites are dedicated to governmental issues, in the sense that all the topics being discussed there pertain to administrative and legislative issues that concern every citizen. Given the availability of these online data, we suggest the use of data mining techniques in order to extract information about: (i) the polarity and the implicit impact factor that citizens assign to every governmental decision, and (iii) how this impact affects the formulation of new decisions. In our current study, we outline the methodology towards accomplishing the above objectives and we propose the architecture of an interactive e-government platform.

**Keywords:** Opinion mining, decision making, knowledge extraction, e-inclusion

# **e-Financial Reporting Within the Romanian Public Sector Governance**

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**Abstract:** Nowadays, there is a growing pressure on governments to broaden the scope of their financial responsibilities from accounting to accountability. We conduct our research due to the fact that the public sector, to demonstrate accountability, must provide clear, understandable and reliable information and public organizations should increase their transparency as part of their policy of good governance practice. The purpose of our paper is to examine the extent to which Romanian public local entities (PLE) use e-disclosure facilities for their financial statements and other information. The paper is based on the national and international principles of governance in order to identify and test the factors that may influence the level of internet disclosure of PLE. Our paper represents an empirical study that analyses e-disclosure and transparency, based on a quantitative approach using case studies of the biggest Romanian public local authorities (PLA). The results of our exploratory investigation found in Romanian practice a low level of internet e-financial reporting of the PLA and have conduct us to the conclusion that only the revenues and the municipal bonds issuing are influencing the level of e-disclosure by Romanian PLA.

**Keywords:** e-Disclosure, local public administrations, internet

# **A Review of Reviews About e-Government: What are we not Doing?**

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**Abstract:** The field of e-government has been so named for about the last fifteen years, although some definitions of e-government extend its heritage back to the 1970s. But where is the field up to? What issues are being explored? What has been established as a central body of knowledge in this field? This paper reviews the reviews of e-government that have been published thus far. The paper discovers that the field is still young enough that the reviews do not adopt consistent approaches, do not draw from an agreed resource of publications, and investigate the field from different perspectives. Consequently, little can be said definitively about where e-government is. Furthermore, this review identifies that crucial sources of e-government ideas and direction are not considered at all. This is particularly problematic because the resources not considered—government reports and strategies and publications of international consulting firms—are frequently the only resources applied by practitioners in the e-government field.

**Keywords:** e-Government; literature review; definition of e-government; research

# Strategies for Integrated Service Delivery and Supply Chain Management

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**Abstract:** Integrated Service Delivery (ISD) requires collaboration among governmental organizations. A citizen's service request is performed in an integrated manner when several organizations carry out the request in coherence, while each organization performs its own activities within the service delivery chain. The overall performance of ISD is, thus, dependent on the coordination of the activities of the organizations involved in a service delivery chain. The performance of each individual organization influences aspects such as lead-time and quality of the service delivery. Therefore, Supply Chain Management (SCM) of such a service delivery chain is necessary to effectively integrate the efforts of the various organizations. Various types of strategies can be undertaken to manage such a process involving a number of different governmental organizations. Yet little knowledge is available about which strategies might be effective under what circumstances. In this paper we identify four different SCM strategies based on literature research and case study analysis. The four strategies are identified based on two dimensions: the level of control and the information systems integrations approach. Governance of a supply chain can take place in a centralized or in a decentralized way. In a situation of centralized governance, an orchestrator controls the supply chain, whereas decentralized governance of the supply chain is based on peer-to-peer relations. The information integration approach can be tightly or loosely coupled. Tightly coupled systems are closely connected to each other and tracking and tracing information is exchanged to keep track of the progress. Whereas in a loosely coupled manner of integrating systems, only primary information is exchanged and tracking and tracing requires a separate service process. Based on a case study analysis, it is concluded that various strategies can be identified in the Netherlands. For three of the four strategies, cases have been found. The strategy selection depends on factors such as the institutional environment, political ambitions and organizational readiness. Furthermore, each strategy has its own merits and demerits. We recommend investigating the relationship between situational characteristics and SCM strategy in further research.

**Keywords:** Integrated service delivery, supply chain management, inter-organizational collaboration, governance, integration strategy

# Gateways to Justice: The Use of Videoconferencing Technology to Take Evidence in Australian Courts

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**Abstract:** Videoconferencing technology is becoming a significant component of eJustice. Across the justice system many countries are making substantial investments in this technology for a range of uses, which increasingly involve the taking of evidence in legal proceedings. While the use of videoconferencing is most often justified on the grounds of cost-savings and convenience, there has been little in the way of research on its effects. What do we know about its impact on the witness who uses it? How is that remote witness perceived in the courtroom? How do they experience the court process? Will the giving of evidence remotely advantage or disadvantage the party who calls that witness? What criteria should courts apply when deciding whether or not to allow evidence to be taken by this method? Should there be different criteria for different types of witnesses? What protocols and procedures should guide the way the evidence is taken? This paper will report on the preliminary findings of a major three-year multi-disciplinary research project designed to improve the way remote witness technology is used in Australian courts. It will discuss the types of technology used, the extent and incidence of its use, the legal and procedural framework, and the design of the remote witness environment. In the past ten years since their inception, the design of remote witness facilities has changed little, reflecting the paucity of research undertaken in this area. We contend that the environmental context in which evidence is given is of great significance, and that a judge allowing a witness to give their evidence remotely cannot be certain that the current architectural and technological configurations will not be deleterious to a witness' ability to communicate their position to the courtroom effectively. We argue that an exploration of the concept of 'presence' in virtual environments can provide valuable insights into the way in which the remote witness environment can be improved. We will outline how our research is being used to develop criteria that will be tested experimentally in the next phase of the project. The results of this research will be used to produce practical guidance for courts on how to best use remote witness technology to achieve just outcomes in an eJustice environment.

**Keywords:** Videoconferencing, closed circuit television, remote witness facilities, evidence, presence, virtual court

# Equality Across the Board – Tackling our non-Compliant Customers

**Susan Walsh**

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**Abstract:** ‘at the heart of eGovernment is minimising contact with most of our customers’. The line is extracted from a paper<sup>1</sup> presented to the ECeG Conference in 2008 by the Irish Revenue. This paper presented comment on Risk Analysis carried out on Revenue’s business customers. Revenue is in a position to carry out this intensive analysis because of the enhanced levels of data available and the improved IT processes developed to analyse this data. Up to now Revenue’s risk analysis and audit activities have been focused on its business customers. However with the need for fairness across the board for all taxpayers, we are now expanding our Risk Analysis to include the PAYE (Pay As You Earn/Employee) sector. Revenue’s aim is not only to identify the riskier customers but also to ensure that large blocks of compliant customers are not the subject of unnecessary attention. With a PAYE case base of 2.2 million the challenge is not only to provide a profile of Revenue’s complete PAYE customer base, but in doing so to identify the riskier customers. This new innovative approach interrogates data, both internal and 3rd party, with Lifestyle type ‘rules’ leading to an examination of this sector in a method never previously available. This will help build a risk profile of each customer, based on the relevant ‘rules’ and the values attaching to those ‘rules’. The results have identified clusters of the riskier customers. This will give us a rational basis for allocating compliance resources and for minimising compliance contacts with the compliant segments of our customer base. This approach will introduce risk based compliance interventions, based on selected intelligence, to a sector that has evolved significantly in its complexity in recent years

**Keywords:** Risk analysis, profile, compliance interventions

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<sup>1</sup> Risk Analysis or How to Avoid Contact with Most of your Customers

# **Evaluating the G2B Capability of Local Government Portals—Take Tianjin Binhai New Area and Shanghai Pudong of China as Examples**

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**Abstract:** Purpose: The paper constructs an index system to evaluate the G2B service capability of local government portals, and then takes the government portals of Tianjin Binhai New Area and Shanghai Pudong New Area of China as examples to evaluate to test its usability. Methodology: Under the theoretic frame of service-oriented government and information architecture (IA), the indicators of this evaluating instrument come from previous assessments and authors' analyses of more than 20 government portals. Their weighting coefficients are given according to Delphi and AHP methods. Two development zones of China are selected as the measured objects to test the usability of the index system. At last 8 hypotheses are put forward for future empirical test as a result of this explorative research. Findings: After 8 portals of two areas are evaluated, the instrument is proved to work well, and 8 hypotheses are presented for future test.

**Keywords:** Evaluation index system for e-government; G2B; Chinese government portals

# **Challenges in Developing an Incipient Information Systems Strategy for Local e-Government: An Empirical Study of a British Local Authority**

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**Abstract:** Developing a technology-based information systems strategy within the local administrative context is a critical necessity for electronic governance. Yet, local authorities are normally overwhelmed with challenges as they initiate such strategies to manage information systems as part of their public services delivery functions. In this paper, I analyse the challenges faced by a British local authority in the incipient stages of its information systems strategy development. The empirical study of this local authority evinced significant challenges of poor structures, of unsystematic processes, and of organisational culture and learning. The analysis leads to suggestions for local authorities to depart from an indifferent attitude towards productivity of public services towards an adoption of a business-oriented philosophy. I use this philosophy to discuss implications for my suggested principle of internal innovation as a means of addressing these challenges.

**Keywords:** Information systems strategy, organisational culture, organisational learning, internal innovation, information systems management, local government

# **The Major Challenges to Cross-Border Interoperability Public e-Procurement**

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**Abstract:** From a cross border perspective modernizing and transparency procurement markets, devising a set of common standards to build and interoperability public e-procurement process is crucial to encourage cooperation between public buyers and encourage to a better participation of the private organizations in public procurement. Accessible and adaptable public e-procurement platform provides governments interoperability of different sizes and vertical enterprises. An integrated, unified, simplified and speed up maximizing the efficiency platform must be designed that it can be adaptable for companies and public organizations' needs and be made compatible with standard expense procurement processes. and Enterprise Resource Planning (ERP) systems take advantage of the better designed of the processes as an whole that simplifies the human resource of purchasing professionals, allows to work with multiple suppliers, creates purchasing requirements or directly purchases from electronic platform, to provide participants of the Small and medium enterprises (SMEs). Strength of the public e-procurement system is its adaptability, to meet the need to exchange information across borders to achieve interoperability. But it is difficulty in agreeing on open standards for instance in introducing new practices for open public procurement, or in a reluctance to accept constraints imposed by the legal status of other countries. However, cross border initiatives can present a number of challenges due to the diversity of the institutional and legal settings of different countries. To address interoperability concerns and promote the development of a common standard to be used in electronic procurement is to develop a common library and generic public e-procurement documents as a subset by refining the Universal Business Language (UBL) common library and documents. In order to obtain a reliable and comprehensive overview of the situation of electronic public procurement in Europe, this document is analysing relevant case studies in terms of the institutional and legal limits to the development of cross border public e-procurement platform. The purpose of this paper is to describe the roadmap for work to be undertaken as part of the public e-procurement interoperability process.

**Keywords:** e-Procurement, interoperability, ERP, e-government, UBL, e-catalogue

# Implementing e-Government in Iran

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**Abstract:** e-Government refers to the use by government agencies of information technologies that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions. The progress toward implementation of e-Government in Iran has recently received the interest of the authorities and policy makers. The requirement for an adaptive approach in its development, and relevance as a recommended loom is realized. Providing an obvious explanation for e-Government in Iran to cover its cultural, social, and political characteristics, and also its actual and prospective position considering access to science and technology, will be an important measure in ensuring its success. From a theoretical point of view, e-Government in Iran is perceived as a major view in the phase of rising to a new performance level, including reducing the operations cycle time; responding to intolerant and challenging citizens in receiving quality, cheap, and immediate services; and also fulfilling the government staff, whom bear the shortcomings of the systems. It is significant here to mention that regardless of all historical and political concerns which Iran has experienced in the last decades, the people have showed their innovation and ability for improvement. In this paper, I tried to evaluate some organization for e-Government in Iran as a new phenomenon. It has maybe encountered with many problems and weaknesses. This paper depicts some solution for implementing e-Government in Iran. Finally, I investigated e-Government in Iran and compare with some developing country.

**Keywords:** e-Government, implementing, evaluate, e-government model, e-government symbols

# **Voter Verifiable and Single Transferable Electronic Voting for Elections with Electoral Barriers**

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**Abstract:** “Voter verifiability” is a notion offered by some electronic voting schemes, which develops into an important issue of democracy in the electronic world. The idea is to endow each voter with the facility of verifying that his vote is counted correctly. The check mechanism for the correct count of the vote can be provided by means of a voting receipt. On the other hand, whenever one has a receipt that serves to check the correct casting and tallying of the vote, it can also be used as the proof for the content of the vote. This may lead to voter coercion and ballot-selling, which in turn injures democracy. Hence, previous versions of the electronic voting schemes have avoided giving receipts to the voters, and introduced the concept of receipt-freeness as an integral part of the voting system. Nonetheless, e-voting can only be made to work if voters trust in the system, and receipts are useful in building this trust. “Prêt a Voter” is an e-voting scheme proposed by Chaum, Ryan et al, which provides voter verifiability without any threat of voter coercion and ballot-selling; because, the receipt does not tell anything about the content of the vote to anybody except for the voter himself. The last version, “Prêt a Voter: All-In-One” scheme proposed in 2007 also solves the problem of handling the Single Transferable Voting (STV) elections efficiently. We focus on STV elections and propose a protocol modification for the elections; in which political parties, whose votes remain below a certain barrier, are eliminated. Our proposal prevents the loss of votes used for the eliminated parties and distributes them securely to the second or higher choices of their voters. This protocol is then applied to the Prêt a Voter: All-In-One scheme, which we suitably modify to enhance the security of its ballot-construction phase. We finally adapt the STV protocol to Turkish parliamentary elections, by taking into consideration the present details of the tallying strategy within each election region.

**Keywords:** Electronic-voting, public-key encryption, single transferable voting, voter verifiability

# **The Security Paradox, Disclosing Source Code to Attain Secure Electronic Elections**

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**Abstract:** In recent years we have witnessed the amalgamation of government services and electronic systems. Citizens and state interactions have changed focus towards human centered electronic approaches, introducing citizens with electronic services that have simplified bureaucratic mechanisms and reduced response time. All efforts of implementing electronic governance have led to the next step in this process, digitalization of the decision making process, electronic voting. Electronic voting is an evolutionary step in the integration of electronic governments which will inevitably be introduced by all democracies across borders. This paper will view the opportunity of introducing electronic voting and explore the characteristics of such a system to provide a secure and trustworthy platform. Setting the field and clarifying disambiguation will result in viewing the critical issues involved in such a system. Transparency and audit ability may be one of the most decisive rudiments of such a system as it is directed in increasing citizen's confidentiality ,focal point of this research is the selection involving the "disclosability" of e-voting system source code. Approaching the issue from information's systems security perspective and taking into account relations with the open source initiative, it is evaluated that for electronic voting to harness the power of scientific review and secure coding, security must not depend on obscurity.

**Keywords:** e-Democracy, e-voting, open source electronic voting, disclosed electronic elections