
Editorial

Vishanth Weerakkody*

Department of Information Systems and Computing
School of Information Systems, Computing and Mathematics
Brunel University, Uxbridge, Middlesex UB8 3PH, UK
E-mail: Vishanth.Weerakkody@brunel.ac.uk

*Corresponding author

Yogesh Kumar Dwivedi and Michael D. Williams

School of Business & Economics
Swansea University, Swansea, SA2 8PP, UK
E-mail: y.k.dwivedi@swansea.ac.uk
E-mail: m.d.williams@swansea.ac.uk

Biographical notes: Vishanth Weerakkody is a Lecturer in Strategic Information Systems in the School of Information Systems, Computing and Mathematics at Brunel University in the UK. He holds an MSc in Business Systems Analysis and Design and a PhD in Business Process and Information Systems Reengineering. His current research interests include e-government, cross-organisational process redesign and web services. He has guest-edited special issues of leading journals on these themes and he is the Associate Editor for a number of leading journals. Dr. Weerakkody has also held various IT positions in multinational organisations and his final appointment in industry was as a Methods and Process Analyst at IBM UK.

Yogesh K. Dwivedi is a Lecturer in Information Systems in the School of Business and Economics, University of Wales Swansea, UK. He obtained his PhD entitled 'Investigating consumer adoption, usage and impact of broadband: UK households' and MSc in Information Systems from the School of Information Systems, Computing and Mathematics, Brunel University, UK. His primary research interests focus upon the adoption and diffusion of Information and Communication Technologies (ICTs) in organisations and society. He has co-authored more than 40 papers in academic journals and international conferences. He is a member of the Association of Information Systems (AIS) and life member of the Global Institute of Flexible Systems Management, New Delhi.

Michael D. Williams is a Professor in the School of Business and Economics at Swansea University in the UK. He holds a BSc from the CNAA, an MEd from the University of Cambridge and a PhD from the University of Sheffield. He has implemented and evaluated information systems in domains including finance, telecommunications, manufacturing and government, is the author of numerous refereed and invited papers, and has obtained external research funding from sources including the European Union, the Nuffield Foundation and the Welsh Assembly Government. He currently serves as an invited member of the Project Expert Group for a European Union-funded project examining transformative use of ICT.

It gives us great pleasure to welcome you to this special issue of *Electronic Government: An International Journal* on the theme 'From implementation to adoption: challenges to successful e-government diffusion'. This hybrid issue comprises papers that cover both theoretical and empirical aspects of the technical, organisational, managerial and social issues in e-government implementation and diffusion. The papers included present research from countries in Africa, Australasia, Europe, the Middle East, North America and South Asia, thus offering a global perspective of current e-government adoption and diffusion challenges.

E-government encompasses a broad spectrum of government activities that are offered using Information and Communication Technologies (ICT), and has become a political imperative at local, national and international levels. Having largely evolved from e-business ideas, the success of e-government will depend on how governments entice citizens to use online public services. Therefore, from a demand perspective, extensive efforts are required to increase citizens' awareness of the transformation of delivery of government services and their online availability. In order to prevent a digital divide in terms of using e-government services, it is also necessary that citizens from all segments of the digital society are equipped with basic ICT skills, as well as private and or public access to high-speed internet connections (*i.e.*, through the use of broadband at home or in public places). Such issues may appear obvious and uncomplicated, however, we believe that they are in fact critical challenges to citizens' adoption of emerging e-government services. Consequently, there are many technical, organisational, managerial and socioeconomic challenges to successful implementation and adoption of e-government, which require attention from various stakeholders, including researchers and policymakers.

This special issue presents a collection of papers that provides a common platform for the presentation of original research, highlighting issues relating to technical, organisational, managerial and socioeconomic aspects of e-government. The issue consists of ten research papers that capture a variety of e-government-related themes from a global perspective. The papers include real-life examples in addition to conceptual and research ideas that can be further developed by researchers and practitioners. The first paper offers a technical and organisational perspective of e-government implementation, while the second and fifth adopt a more technical perspective. The third, fourth, seventh, ninth and tenth papers present research that analyses socio-organisational aspects. Finally, the sixth and eighth papers examine citizens' perspectives of e-government implementation and diffusion. As such, this special issue outlines topics surrounding human, managerial, socio-organisational and technical components that make up e-government, and offers readers a perspective of e-government from both users' (citizens) and organisations' (governments) perspectives.

The first paper is by Srivastava and Teo, and is entitled 'What facilitates e-government development: a cross-country analysis'. Making use of secondary data from 115 countries and Technology–Organization–Environment (TOE) as the guiding theoretical lens, the authors examine the facilitators of e-government development. The research highlights the importance of national, technological and organisational (human capital) contexts for e-government development.

The second paper by dos Santos and Reinhard is entitled 'Setting interoperability standards for e-government: an exploratory study'. In this paper, the authors discuss the significance of information sharing and systems integration in e-government, and explore the process of defining compatibility standards. The authors identify the complexities

involved in setting such standards, and highlight the adoption barriers, among other factors. The paper discusses the management of the standardisation process in an electronic government environment and presents preliminary findings from a case study of a Brazilian interoperability standard (e-PING).

The third paper 'E-government implementation challenges in the UK: a case study of Trading Standards Department' by Kesar *et al.* reports the findings of a case study of e-government implementation undertaken at a local government authority in the UK. The research highlights the challenges that UK local authorities face when implementing e-government services. The authors use the framework for e-government proposed by Heeks to understand the underlying reasons for the failure of local authorities to implement e-government successfully. The paper contributes to the understanding of successful implementation and adoption of e-government initiatives at the local level.

The fourth paper by Jones *et al.* is entitled 'E-government: an e-reverse auction case study'. This paper presents the findings from an exploratory case study in relation to e-Reverse Auctions (eRAs) in the UK public sector. An eRA is an internet-based, online and dynamic auction, in which suppliers bid against each other to provide products or services at the lowest price. With central government calls to improve and maximise efficiency in procurement processes, this research illustrates how eRAs can be used to realise these benefits. The research also notes that eRAs can in fact result in disadvantages, including poor buyer and supplier relationships.

The fifth paper 'RFID and interorganisational collaboration: political and administrative challenges' by Gogan *et al.* examines how RFID technology can be used to support interorganisational collaboration. The authors use the case of an initiative undertaken by the Wisconsin Livestock Identification Consortium to utilise RFID technology for tracking livestock movements. The study suggests that organisations adopting RFID will need to change their technical and organisational processes, and make accommodations in response to political and environmental constraints. The paper demonstrates how political and administrative challenges interact with technical aspects of interorganisational system design when collaboration occurs between organisations.

The sixth paper 'Implementing and managing e-government in the State of Qatar: a citizens' perspective' by Al Shafi and Weerakkody explores the factors influencing e-government implementation in the State of Qatar. The authors demonstrate how, despite the many lessons that can be learned from the experiences of e-government initiatives in developed countries, developing countries are still faced with various challenges pertaining to e-government implementation in their countries. Using survey-based research, this paper examines some of these challenges from a citizens' perspective. Among others, this research reports that despite a superior ICT infrastructure, issues such as lack of awareness, bureaucratic business practices and citizens' satisfaction levels with current national e-government strategy were influencing the adoption of e-government services in the State of Qatar.

The seventh paper is by Khoubati *et al.* This paper is entitled 'Broadband adoption in Pakistan' and aims to provide an understanding of the factors affecting the adoption of broadband internet in a developing country context. The authors use a survey-based approach to identify and examine various attitudinal, normative and control factors to provide insights into broadband adoption in Pakistan. The findings of this paper suggest

that primary influence, facilitating conditions, resources, cost and perceived ease of use are significant factors for explaining behavioural intentions to adopt broadband in Pakistan.

The eighth paper 'Exploratory factor analysis of advanced traveller online services' by Horan and Abhichandani highlight the importance of augmenting the efficiency and convenience of e-government services from the citizens' perspective. Using online surveys in two US metropolitan cities, Los Angeles and Minneapolis, the authors evaluate Advanced Travel Information Systems (ATIS), a form of government-to-citizen digital information services, to examine objective and subjective performances in satisfying the information needs of citizens.

In the ninth paper 'E-government implementation in Zambia: contributing factors', by Weerakkody *et al.*, a survey-based research is used to explore the reality of e-government implementation in Zambia from the government's perspective. The paper highlights the fact that although Zambia has recognised the importance of e-government through their national ICT policy as a means to increase opportunities for wealth and create active participation in poverty reduction, the benefits of e-government are yet to be realised. The authors report that whilst challenges such as environmental issues, leadership, change management, human capital, funding and infrastructure are critical to successful implementation of e-government, there is little evidence to suggest that effort is being applied to counteract these challenges. The lack of context-specific e-government programmes since the approval of the national ICT policy in 2005, and the absence of marketing to promote e-government among policymakers and government workers have been identified as key challenges that need to be addressed for e-government in Zambia.

The final paper is by Tate *et al.* This paper 'How the current orthodoxy of local government is failing IT managers: an illustrative case study' examines the widespread reform of public service institutions along market principles, known as New Public Management (NPM). The authors examine some of the IT management issues that have risen as a result of the changing nature of local government. The paper identifies a disconnect between the current orthodoxy of local government, the expected benefits of information technology, and the actual experience of information technology management in public-sector organisations.

The theme of this special issue revolves around the premise that e-government has the potential to fundamentally transform not only how public services are offered, but also how they are received by citizens. Conversely, the ten papers presented demonstrate that there are a number of organisational, human, managerial and technical issues that need to be considered in terms of both adoption and diffusion of e-government services. In particular, for e-government to succeed, these issues need to be identified and comprehended in terms of evaluating their influence on local government agencies, as well as government employees and citizens. With these issues in mind, this special issue aims at not only enhancing your knowledge, but also to help generate further ideas on the key challenges influencing e-government adoption and diffusion perspective.

We hope that you will enjoy reading this special issue as much as we did assembling it for you, and we hope to receive your valuable contributions for future issues.