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# EDITORIAL

## Transforming E-Government Knowledge through Public Management Research

### INTRODUCTION

Governments around the world are increasingly using Information and Communication Technologies (ICTs) to modernize their public management systems and their external relationships with citizens, businesses and other organizations. Expectations of the introduction, management and use of ICTs in the public sector, also called 'e-government', are high: policy makers anticipate that e-government applications, such as the Internet, geographic information systems, CCTV cameras or multifunctional smart cards, not only will enhance cost efficiency and effectiveness in the public sector, but also will bring about transformational change in public service provision, administration and engagement with the general public (OECD 2005).

Looking at these policy ambitions it is remarkable that the impact and implications of e-government initiatives on the structure and functioning of the public sector have been given little attention in wider public management reform debates among scholars and practitioners thus far (e.g. O'Neill 2009). This is all the more notable if we consider the fundamental impact ICTs are having on the daily lives of individuals (see for instance Dutton *et al.* 2009). In general, we can observe that, with some good exceptions to the rule (e.g. Bellamy and Taylor 1998; Snellen and van de Donk 1998; Dunleavy *et al.* 2006), the introduction and use of ICTs in the public sector has been more or less sidelined in public management scholarly debates, courses and textbooks thus far: e-government has not been part of mainstream public management research activities, but at most a functional area of interest to the scholarly community (Meijer 2007). An explanation may be that scholars have not sufficiently looked beyond the technical artefact in e-government initiatives, leading to restrictions in our current understanding of e-government phenomena. New perspectives in the field of public management and administration are needed to improve our thinking and understanding of the impact and implications of ICTs in the wider public sector (Taylor 1998; Lips 2007a; Taylor and Lips 2008).

With this Special Issue we would like to contribute to academic knowledge and debate in the field of public management by exploring e-government initiatives in

relationship to public management perspectives and issues. Most contributions to this Special Issue are based on papers presented earlier at a dedicated panel track on 'E-Government and Institutional Change' convened at the 12<sup>th</sup> and 13<sup>th</sup> Annual International Research Society for Public Management Conferences in 2008 and 2009, respectively. Based on the observation that governments increasingly acknowledge that ICTs have an *enabling* role in establishing transformational change in the public sector, rather than that public sector change is technology *driven* (e.g. Cabinet Office 2005; Flumian *et al.* 2007), the panel further explored and discussed potential relationships between public management and public management research, ICTs and institutional change.

Before we provide an overview of the contributions to this Special Issue in the last section of this Editorial, in section two, we will further introduce dominant understandings of e-government thus far and explain how these perspectives differ from a public management view of e-government phenomena. Subsequently, in section three, we will further explore potential explanations of why the introduction and use of ICTs in the public sector have not been linked to or integrated with scholarly debates on public sector reform so far. We will conclude this discussion with some suggestions for future e-government research.

## A DOMINANT 'E' PERSPECTIVE ON 'E-GOVERNMENT'

E-government is a relatively new concept for scholars and public management practitioners. The origins of e-government can be traced back to the introduction and uptake of the public Internet in society and, with that, the emergence of new forms of 'e-commerce' and 'e-business' in the private sector (Moon 2002). One of the earliest uses of the e-government concept can be found in a 1993 strategic document on re-engineering government through information technology,<sup>1</sup> presented by the Clinton administration in the USA. At the time, influenced by Business Process Reengineering (BPR) thinking, US Vice President Gore led an initiative to explore how ICT could be used to re-invent government and, with that, fundamentally improve public sector performance (Fagan 2006):

The government must not apply information technology haphazardly or sporadically. It also should not simply automate existing practices. Instead, public officials should view information technology as the essential infrastructure for government of the 21<sup>st</sup> Century, a modernized 'electronic government' to give citizens broader, more timely access to information and services through efficient, customer- responsive processes.

(US Government 1993: 1)

Since then, a variety of interpretations and perspectives have been associated with the concept of e-government, albeit often narrowly defined from a socio-political point of

view (Taylor and Lips 2008). Indeed, the use of similar concepts in this area, such as digital government and electronic governance, and a continuing alliance with new concepts and developments like e-participation, mobile or 'm-government' and government 2.0, demonstrates that e-government still is an evolving concept (Lips 2007b).

As an area of study, e-government first of all emerged among practitioners who, struggling to meet the challenges of the new Internet medium, creatively implemented new Web-based information systems (Moon 2002; Grönlund and Horan 2004: 715–16). Gradually scientists, particularly those with an Information Systems (IS) background, started to take in interest in this new topic area. With that, the dominant focus in the academic study of e-government became the technical, user and organizational aspects of e-government, instead of for instance political, governmental, democratic or societal issues and implications of introducing and using ICTs in the wider public sector. This meant that models, approaches and perspectives related to the use of ICT in the private sector (e.g. in e-commerce) were often considered in the study of e-government, leading to an underestimation of the unique characteristics of the public sector compared to the private sector in developing an understanding of e-government and its wider implications. A good example is the widespread use of a classification system for e-government service relationships similar to typifying e-commerce relationships: for instance, Business to Consumer or B2C, has found its equivalent in G2C, beside further analogies like G2B and G2G. As a result, the centre of e-government attention primarily has been on 'e-' rather than on 'government' thus far (Lips 2008) with a strong scholarly interest in the use of websites for public service and information provision (e.g. West 2005).

Another illustration of a dominant IS or 'e' scholarly focus on e-government phenomena are widely accepted models of e-government development. A well-known example is the four stage e-government maturity model, which indicates how e-government phenomena evolve through stages of information provision, transaction, vertical integration and horizontal integration, respectively, in dealing with increasing levels of technological and organizational complexity (Layne and Lee 2001). A further example are widely adopted e-government sophistication models, according to which e-government initiatives usually evolve along stages of information provision, interaction, and transaction, towards transformation (Siau and Long 2005). These e-government development models suggest a certain chronological order or, in some cases, even a linear pathway for e-government managers to pursue (Yildiz 2007).

In the past few years however, we can observe a critical debate emerging in the IS scholarly community about the current state of e-government research. Based on analysis of available e-government research publications so far, several IS scholars come to the conclusion that, also compared to traditional IS research for instance, the new field of e-government research has so far not led to a better or distinct understanding of

e-government phenomena (Andersen and Henriksen 2005; Grönlund 2005; Heeks and Bailur 2007). This is not to say that the emerging academic field of e-government would benefit from moving away from the IS community and more towards the field of public administration and management. Indeed, several scholars have argued that an exclusive focus on the macro-level of government, political and democratic institutions, is not sufficient either for understanding and explaining e-government phenomena. Acknowledging that ICTs can influence the public sector and its external relationships in a variety of ways and with differing outcomes, a treatment of these technologies as a black box will not help us in gaining adequate understanding of e-government and its implications (Lenk 2007).

In general, what is usually perceived to be lacking in e-government research is an integration of public administration and political science disciplines in the current scholarly focus on e-government phenomena. Although scientific debates about the causal relationship between technology and society have not been conclusive and result in different and often opposite perspectives, ranging from the dominance of technology ('technological determinism') to the social shaping of technology ('social determinism'), an emerging view is that e-government scholars should at least take full account of the socio-technical nature of the phenomena (e.g. Beynon-Davies 2007): e-government is an outcome of the interplay between ICTs, the public sector, and individuals who are using ICTs. An adequate understanding of the impact and implications of e-government therefore requires a holistic, integrated analysis of both the 'e' and 'government' (Lips 2008).

This holistic approach will have implications for both disciplinary areas involved in the interdisciplinary study of e-government. From an 'e'-perspective this will require a further 'unpacking' of the ICT systems introduced and used in the public sector (Lenk 2007). E-government phenomena are not restricted to websites or the Internet, but involve a large variety of ICTs with different technical functions and capabilities, and, as a consequence, different possibilities for influencing processes and structures in the public sector. A holistic 'e'-perspective also would take account of the long history of information systems in government prior to the Internet, including the legacies of this history for (further) e-government development (Margetts 1998; Agar 2003). From a 'government' perspective, we will need to explore useful analytical frameworks based on public administration and political science theory, which, when applied to e-government phenomena, can help us to improve our understanding of the impact of ICTs on government and its unique societal role and relationships. Acknowledging that this 'government' perspective has been underestimated or even absent in the study of e-government phenomena so far, interdisciplinary studies of ICTs in the public sector will need to demonstrate that the introduction of e-government initiatives does not drive change in public management, but enables complex, fundamental interactions between government, individuals and ICTs, leading to a wide variety of changes in the public sector, including institutional changes that require scholarly debate.

## E-GOVERNMENT FROM A PUBLIC MANAGEMENT PERSPECTIVE

E-government is a complex phenomenon which usually involves technical, business process, relationship and institutional changes (e.g. Bellamy and Taylor 1998; Snellen and van de Donk 1998; Dunleavy *et al.* 2006). Although e-government is perceived as one of the most challenging concepts for governments around the world, it has not been clearly defined and understood among scholars and practitioners in the field of public administration and management thus far (e.g. Meijer 2007; Yildiz 2007; Taylor and Lips 2008). This may not be surprising if we look at the evolution of the e-government concept. For instance, since its emergence in the early 1990s, e-government has been associated with various public sector domains and activities, including public service provision, democratic processes and activities, administration, public policy, regulation and, more recently in developing countries, good governance (e.g. Lips 2007b; Schuppan 2009a). As a consequence, it has been difficult to arrive at a widely accepted definition of e-government including a clear idea about the boundaries of this new concept (Chadwick 2006; Yildiz 2007). In this contribution we use the following interdisciplinary working definition of e-government while acknowledging that, from an international-comparative perspective, the public sector concept included in this definition has different meanings and definitional boundaries in various countries: *'the introduction, management and use of ICTs in the public sector, and their implications'*.

So far, scholarly attention to e-government from a public management perspective is relatively low (Meijer 2007), especially compared to scholarly attention from more technical disciplines as discussed earlier. Moreover, the leading public management discourse on e-government comes particularly from 'grey literature' instead of academia (Chadwick 2006): from reports and documents published by influential consultancy firms (e.g. Accenture), think tanks (e.g. OECD), international organizations (e.g. UN, World Bank) or conductors of influential e-government benchmark exercises (e.g. Roy 2006; Bannister 2007). Interestingly, similar to former US Vice President Gore's early vision of e-government presented above, the final outcome usually expected from e-government is 'transformation', which requires fundamental changes in public administration and management.

What may explain this lack of scholarly attention to e-government related developments in the public management field? We would like to put forward three potential explanations. The first explanation may be offered by the fact that most scholarly work in the field of e-government has focused on a restricted knowledge area of public management: the domain of public service provision. Pointing at strong similarities between New Public Management and e-government thinking, several public management scholars have looked at e-government initiatives supporting the implementation and development of an output or service orientation in the public sector and, with that, a customer relationship with citizens, businesses and other organizations (e.g. Bekkers and Homburg 2005). In other words, scholarly interest

often has been restricted to the implementation of specific public sector reform ideas, rather than exploring the introduction and use of ICTs in the public sector from a perspective of policy formulation, public sector reform or institutional change, for instance. Similarly, the impact of ICTs on the internal workings of the public sector, such as the production and processing of public services, often has not been acknowledged as an important part of e-government focused public management research (e.g. Schedler and Helmuth 2009).

A second explanation may be that, despite the policy rhetoric of transformation and the reform hypothesis associated with e-government, available public management research findings on e-government phenomena often support the so-called 'reinforcement' hypothesis proposed by Kraemer and King (1986 and 2006): organizational elites use ICTs to reinforce existing organizational arrangements and power distributions rather than to change them (Kraemer and King 2006: 3). Available e-government research findings often point at incremental changes in the public sector as a result of introducing and using ICTs, leaving the deep structure of existing institutional arrangements and external relationships intact (Bellamy and Taylor 1998; Snellen and van de Donk 1998; Fountain 2001; 6 2004).

It may well be the case that public management research so far has not taken the possibility of a substantial time gap between the introduction of new ICTs, such as the Internet, in the public sector and fundamental change outcomes resulting from the use of these technologies into account. For example, in applying Solow's productivity paradox to the public sector, namely the fact that productivity growth in the USA had slowed every decade since the 1960s while investment in technology had grown dramatically, recent public management research findings demonstrate the value of deploying new ways of analysing and measuring e-government impact outcomes (Foley and Alfonso 2009). A further observation is that, in many cases, public management research activities have not explored the operational implications of e-government initiatives, that is, the actual use and users of ICTs in the public sector, where fundamental changes are happening. We need to be reminded here that it is the strategic level of government, rather than the operational level of government, to which the reinforcement thesis applies (e.g. Snellen 2007).

Experiences with technological revolutions in the past teach us that transformation enabled by technology is neither a linear nor a rational development: ICT-enabled transformation is in fact a *process* as much as it is an *outcome* (Lips 2008). We first need to learn how to use the new technologies before we are capable of learning how to do things fundamentally different (Castells 1996). As a consequence, 'deep' e-government learning takes time. Varying observations seem to support further this long-term learning process. For instance, research points out that the uptake of ICTs in the public sector has been slow (6 2004) and managers often do not understand e-government well (Kraemer and King 2006). Moreover, e-government projects are perceived to be complex, often 'fail' and implementation in accordance with initial aims is difficult to achieve (Heeks 2006).

A third explanation builds upon the former two arguments. Public management and public management research so far may not have used appropriate lenses to detect transformational change in the public sector as a result of using ICTs. Perceiving ICTs not only as a black box but also especially as a tool box which delivers predetermined outcomes (e.g. the US federal government's view on e-government in 1993), explorative public management studies in the field of e-government often have been focused on the modernization, rather than the transformation, of government. The disruptive nature of ICTs caused by their distinctive capabilities, namely that they act on information in various ways and forms, has not been widely considered in studies of public administration and management (Taylor 1998; Raab 2007). As information is ubiquitous in the public sector, the transformational potential of using ICTs in government and its relationships with society is both substantial and fundamental (Taylor 1998; Lips 2008; Taylor and Lips 2008; Schuppan 2009b). We therefore will need to focus on new patterns of information flows, new forms of information handling and new informational relationships in the public sector, for example, in order to see changes to fundamental public management concepts, such as accountability, governance, public record management, outsourcing, risk management, customer relationship management or citizenship. In general, scholars will need a holistic, integrated analytical framework in order to access appropriately and explore empirically ICT-enabled informational developments happening in the public sector.

Consequently, we do not want to argue (yet) that New Public Management is dead in an era of digital government, as some scholars assert (Dunleavy *et al.* 2006). Rather, we first would like to establish empirically what is happening in the wider public sector as a result of the introduction and use of a variety of ICTs, before considering the potential implications of emerging information intensive government, including reconsidering and reconceptualizing public management.

## **THIS SPECIAL ISSUE**

The various contributions to this Special Issue are all good examples of empirical research which uses an integrated analytical framework to explore more deeply the introduction and use of ICTs in the wider public sector, and their implications. Moreover, the contributions touch upon a large variety of public management concepts, strategies, activities and relationships. We will start this Special Issue with contributions which particularly focus on the impact of e-government on the internal workings of the public management system, before gradually moving to those contributions which explore e-government phenomena in external relationships with citizens, businesses and other organizations. Each of the contributions to this Special Issue is briefly summarized below.

In the first contribution of this Special Issue, Rose O'Neill critically reflects on a key concept related to most e-government initiatives around the world: the notion of



transformation. She uses the general proposition that, to date, public sector transformation facilitated by e-government initiatives is limited to change that is instrumental in outcome, rather than systemic. Consequently, political, legal and constitutional structures and relationships of government remain unchanged. O'Neill empirically explores this proposition for three e-government case studies in the context of the New Zealand public management system.

Second, Albert Meijer explores how complex, ICT-enabled forms of policy coordination and implementation are challenging responsibilities of public officials. His article further investigates the impact of new ICT-enabled policy practices on political, public management and frontline staff responsibilities in Dutch immigration policies. The analysis shows that, in general, politicians, public managers and frontline public servants may be willing to act responsibly, but that the technological settings put severe limits on their ability. Meijer argues that the idea of reconceptualizing responsibilities in public administration and management as responsibilities for system learning should be further investigated to provide an answer to the growing complexities of ICT-enabled government policies.

In the third contribution, Alessandro Spano, Daniela Carta and Pietro Mascia explore the impact of implementing an Enterprise Resource Planning (ERP) system on organizational processes and individual employees of an Italian regional government organization. Based on theoretical assumptions derived from academic literature which mainly focuses on the impact of ERP systems on private sector organizations, they found that, while implementation of the ERP system had an impact on internal decision-making processes of the Sardinia Regional Council, it did not fundamentally change business processes. This latter research finding is in contradiction to existing knowledge on ERP system implementation. A possible explanation is that the ERP project was designed and tailored to existing business processes in the Sardinia Regional Council.

The fourth contribution authored by Tino Schuppan focuses on decisions about outsourcing of ICT-enabled administrative activities in public service provision. New forms of ICT-enabled work sharing in public service arrangements are used as a basis to analyse whether outsourcing decisions need to be reassessed when providing public services to citizens. Using case study evidence from the UK, Schuppan points out that the use of ICTs in public service arrangements not only facilitates new options for outsourcing administrative processes, but also raises new strategic issues in considering outsourcing opportunities.

Miriam Lips, John Taylor and Joe Organ in their contribution explore informational outcomes and implications of using new Identity Management (IDM) systems in public service relationships with the citizen. Drawing upon empirical case study-based research in the UK, they examine how 'citizen identity information' and 'identity management' are being reconstructed conceptually in these emerging e-government service relationships, and what the managerial, governance and democratic implications are of the deployment of these digital IDM systems in the relationship between the

individual and the State. Their research findings suggest that fundamental changes in citizen–government relationships are happening as a result of using new forms of citizen IDM. Moreover, characteristics of both a Surveillance State perspective and a Service State perspective can be observed in emerging e-government service relationships with the citizen.

In the last contribution to this Special Issue, Ian McLoughlin, Gregory Maniatopoulos, Rob Wilson and Mike Martin present their ongoing experience with a collaborative, European Union funded research project to develop virtual public services for older people. A key objective in this research project is to make public service users more central to the system development process. As an alternative to dominant techno-centric, instead of user-centric, approaches in developing effective online public services, they introduce the idea of ‘appropriation through co-production’ to enable design in use. The authors further develop this idea through action research in the Municipality of Bologna, Italy, involving collaboration with local government, public health and social care providers, system suppliers and intermediary research organizations. McLoughlin *et al.* suggest that this new user-centric approach in developing virtual public services can avoid problems of ‘over-integration’ – a consequence of many attempts to provide more joined-up public services by virtual means.

In our view, these contributions effectively demonstrate that proper modernization, transformation or other public sector reform debates, cannot be held without considering the impact and implications of using ICTs in the public sector. We hope that the contributions in this Special Issue will contribute to future debate about public sector reform and institutional change, and that e-government will be treated as an integrated and important part of public management.

## NOTE

1 At that time it was common to use the concept of ‘Information Technology’ for referring to the public Internet.

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A. Miriam B. Lips and Tino Schuppan