Information systems in the public sector: The e-Government enactment framework

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A R T I C L E   I N F O

A B S T R A C T

Despite the burgeoning number of studies of public sector information systems, very few scholars have focussed on the relationship between e-Government policies and information systems choice and design. Drawing on Fountain's (2001) technology enactment framework, this paper endeavours to conduct an in-depth investigation of the intricacies characterising the choice and design of new technologies in the context of e-Government reforms. By claiming that technologies are carriers of e-Government reform aims, this study investigates the logics embedded in the design of new technology and extant political interests and values inscribed in e-Government policies. The e-Government enactment framework is proposed as a theoretical and analytical approach to understand and study the complexity of these relationships which shape e-Government policies.

1. Introduction

E-Government projects are intrinsically embedded in combinations of political reforms and organisational changes designed to enact, support and drive a profound transformation in the organisation of the public sector. Research in the field has so far prioritised the study of the effects of information and communication technology (ICT) as a shortcut to increase public sector efficiency and improve internal administration and management capabilities (Andersen, 1999; Chadwick and May, 2003; Dunleavy et al., 2006), thus downplaying the broader impacts e-Government policies can have on public sector organisation and the services it delivers (Cordella, 2007; Dawes, 2009; Fountain, 2001). Danziger and Andersen (2002) on the basis of a substantial analysis of the leading publications in information systems and public administration fields have concluded that the "clearest positive impacts generated by IT on public administration are in the areas of efficiency and productivity of government performance" (p. 617). In line with these findings, e-Government policies have largely conceived the use of ICTs as a further step in the re-organisation of the public sector along the basic principles of efficiency gains and costs savings that have driven many private sector ICT adoptions (Bekkers and Homburg, 2007; Bhen, 1998; Dunleavy et al., 2005; Heeks, 2002; Homburg, 2004; Osborne and Gaebler, 1992).

Much public sector information systems literature draws on private sector frameworks. For example, it is not by accident that when different stages in the e-Government evolution are discussed (Layne and Lee, 2001; UN and ASPA, 2002) the similarities with private sector ICT frameworks are evident. These stages, which build upon Venkatraman's (1994) Business Process Re-engineering (BPR) framework, do in fact mainly discuss the technology-enabled functions and reforms needed to achieve a more efficient and rational way of working for public institutions. As in the case of the private sector (Ciborra, 2000), it seems that a managerial perspective to e-Government is taken to discuss the role of ICT in the re-organisation of

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work activities. ICT is perceived as the main instrument to achieve these goals. The challenge seems to be the definition of the right technology to achieve a pre-defined outcome. Thus a vast literature has been produced to discuss the effects of ICT adoptions at the different government levels (Asgarkhani, 2005; Denziger and Andersen, 2002; Gupta and Jana, 2003; Melit-ski, 2003; Moon, 2002) and to benchmark countries against indexes of ICT readiness (UN, 2001), as if a better score would lead to more effective e-Government programmes.

Although valuable, this focus on efficiency is limited because it pivots around best practices and universal strategies to successfully implement e-Government programmes neglecting the existing debate about the limitation of the notions of "best practices" (Wagner and Newell, 2004, 2006; Wagner et al., 2006). ICT developments in the public sector should pay more attention to the complexity that is associated with their implementation, rather than focusing on best practices and universal strategies to prescribe how to successfully implement e-Government programmes. Outcomes of public sector re-forms have in fact an impact on social and political dimensions that are not accounted for in private sector frameworks (Aberbach and Christensen, 2005; Bozeman and Bretschneider, 1986; Cordella, 2007; Frederickson, 2000; Moore, 1995). By downplaying this difference, e-Government programmes have often referred to private sector ICTs as a further step in the re-organisation of the public sector along the basic principles of efficiency that are governing the private sector (Ander-sen, 1999; Chadwick and May, 2003; Thong et al., 2000).

A different approach to the problem emerges from the studies that have looked at the socio-technical endeavours taking place around the deployment of ICTs in the public sector in general and public sector organisations in particular (Avgerou and Walsham, 2000; Contini and Lanzara, 2008; Denziger and Andersen, 2002; Fountain, 2001, 2007). In these cases, ICT has been conceptualised within the public sector context and a more specific explanation of the complexity of public sector e-Government projects has been proposed.

By following this train of thought, we endeavour to show how e-Government policies shape the choice and design of ICT projects so that technologies become carriers of the e-Government policies' goals and aims. Moreover, we argue that, these interests carried by technology are enacted by public sector organisations in their daily base actions and routines (Fountain, 2001) so that the outcome of e-Government reforms is shaped by the e-Government policies' aims and goals, the technological characteristics shaped by these policies and the organisational practices which ultimately shape the actual outcomes of the reforms. By so doing, we attempt to fill the gap in the literature identified by Yildiz (2007) who has maintained that "what is also lacking in the treatment of the subject is a more in-depth analysis of the political nature of the e-Government development processes, and a deeper recognition of complex political and institutional envi-ronments" (p. 646).

Our conclusions are built on the findings of the study of e-Government reforms in the criminal justice system of England and Wales. Drawing on a revised and extended version of Fountain's (2001) technology enactment framework, what we have defined as the e-Government enactment framework, our in-depth empirical study demonstrates that in its original form the technology enactment framework does not account for the e-Government policy drivers which influence the choice and de-sign of public sector ICTs. These drivers, as our case will show, are indeed an important force that shapes the very conception of ICTs in the public sector and the outcome of e-Government reforms.

The remainder of this paper unfolds in the following fashion: Section 2 reviews the extant literature on e-Government studies and presents the theoretical background upon which our work is grounded. Section 3 shows the methodology in use in this paper and Section 4 discusses the in-depth case study of ICT deployment in the criminal justice system in England and Wales. Section 5, subsequently, analyses the case and presents the e-Government enactment framework. Section 6, dis-cusses the implications emerging from the framework we propose. Section 7, finally, draws the paper to a close with con-cluding remarks.

2. Background

Even if not yet extensively researched, the relation between ICT policies and public sector reform drivers is an important area of study to better understand the factors that steer and shape e-Government projects (Bekkers and Homburg, 2007; Madon et al., 2007). ICT in the public sector has been mainly discussed as a tool to help create new and better service delivery (Bekkers and Zouridis, 1999) by increasing efficiency and transparency, and improving accountability in public administra-tion procedures and management (Dunleavy et al., 2005; Gupta et al., 2008; Heeks, 2002). By making government more accountable and transparent through this process of information rationalisation, e-Government is very often conceived as a powerful instrument to achieve the public administration reforms envisaged by the new public management (NPM) ide-ology (Barzelay, 2001; Cordella, 2007; Hood, 1991). NPM proposes a project of reforms to redefine managerial and gover-nance practices in the public sector in line with objectives typical of market economics (Osborne and Gaebler, 1992). This radical change in the logic underpinning the organisation and governance of the public sector is associated with a fundamen-tal change in the factors that account for assessing the action of the public administration, not least a shift from effectiveness to efficiency (Pollit and Bouchaert, 2004). The most evident transformation proposed by NPM is to promote a management culture for the public sector that, as in the case of the private sector, becomes results driven, where the managerial efficiency supersedes the need for effectiveness in the delivery of public services (Self, 2000). NPM provides a major set of ideas on which so many current e-Government initiatives are based (Chadwick and May, 2003; Hammer, 1990). ICTs have in fact be-come one of the most common solutions implemented to standardise work procedures and smoothen information flows, to