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Abstract

E-government is perceived as the latest trend in a set of market-driven reforms initiated by many governments since the early 1980s. However, while e-government and the appropriate use of Information and Communication Technologies have the potential to reshape governance structures and improve delivery of government services, it is not clear is would the effect on the possibilities of citizens' participation in policy-making. This paper the aim to deconstruct the meaning of the various components of e-government, identify its conjectural domain and highlight the changes either needed for, or as a consequence of, such initiatives.

Introduction

Policy documents from UN bodies, the OECD, EU and many countries across the globe increasingly identify e-government as a priority activity for achieving good governance (see CEC, 2002; ICA, 2001; OECD, 2003). While experiences between countries differ, a general policy implementation framework has started to emerge providing guidelines for e-government 'success' identified with changes in public governance methods and restructuring of government activities based on insights and experiences drawn from private sector models. The aim of this paper is to deconstruct the meaning of the various components of e-government, identify its conjectural domain and highlight the changes either needed for, or as a consequence of, such initiatives.

Intra-governmental interactions (especially in terms of transactions and information sharing) are among the primary processes of governance being targeted e-government initiatives with Internet technologies seen to provide a communication capacity to enhance interaction and coordination within government bodies and between government and citizens. We can appreciate that governance, accountability arrangements, decision making, performance management, budgeting, monitoring and reporting, and evaluation (all typical public administration activities) are likely to receive a new shape through the effective use of such ICTs. However, the most fundamental activity of every representative government is to produce and implement, through legislation or regulation, policies aimed at increasing the welfare of its constituents. For this reason, innovations in policy making, in terms of more participatory citizens/state relations as well as the introduction of new services and better policy enforcement mechanisms, should be perceived as a key issue when considering e-government implementation, and the combination of these aspects are the main focus of the analysis in this paper.

Jakson & Curthoys (2001, p. 210) suggest that e-government was originally formulated in 1997 as 'digital government' through work of the US National Science Foundation (NSF). In their report, the authors draw attention to the complex managerial framework underpinning e-government implementation which combines elements of both change management and the broader ambitions of New Public Management (NPM) analysis, a set of market-driven reforms initiated by many governments since the 1980s. Still, a distinction is worth noting. While many previous efforts to introduce ICTs in public administration were ambitious, they mostly worked on the utilisation of technology for the realisation of short-term planning, the achievement of cost savings and to streamline bottom-line performance. The contention here is that e-government should be understood as being rather different. Certainly, it includes the above considerations but thanks to contemporary information technologies, information can now be more effectively shared and services distributed between and beyond different organisations at a negligible marginal cost per extra bit of information. The result, it is often suggested, is a situation in which levels of coordination can be substantially

enhanced to support production and delivery systems that will use resources more effectively, deliver higher quality of service and increase social welfare. The extent to which such innovations will be carried out or enforced will depend on a number of factors contingent to the specific environment where they take place. As will be shown, however, once e-government applications are in place they can provide innovative enforcement mechanisms for policies which are not necessarily oriented directly to exploiting ICTs, but can have positive broader consequences for social welfare.

The structure of the rest of the paper is as follows. The next section reviews the main characteristics of e-government and provides a definition. In section 3, innovation-led reforms in public governance are identified, while section 4 deconstructs the underlying rationale behind such reforms by looking at the main tenets used to re-design public governance. Section 5 outlines some policy implications of the conventional approach and proposes an alternative view.

E-Government: Definition and Perspectives

Wimmer & Traunmuller (2000) suggest that the three main objectives of e-government are:

(1) to restructure administrative functions and processes,
(2) to overcome barriers to coordination and cooperation within the public administration,
(3) to monitor government performance.

To this we add a 4th objective implicit in such initiatives, a new model of citizen/state relations where the importance of citizens' and other mediating bodies feedback in policy formulation, implementation and enforcement are recognised. In recent reports of the International Council for Information Technology in Public Administration (ICA, 2001), a major forum and research body analysing e-government's status and efforts in a number of European, American and Asian countries, diverse approaches to e-government programmes are noted. In the USA, for instance, they report the objective of e-government as to integrate islands of automation and simplify business processes to maximise the benefits from technology; in Canada the aim is to redesign services in ways that make sense to citizens, businesses and international clients; in Norway and Spain the emphasis is placed on the modernisation of public services and administrative procedures; while Singapore stresses the need to create a knowledge based work-place for technology experimentation. A fundamental change in the relationship between state and citizens is the minimum common denominator of the above projects.

The shift to e-government then seems to require a new mindset in government, society and public administration; the latter becoming the interface between *customers* and *provider of services*, and no longer between *citizens* and *state*. Hence, a cooperative interaction between citizens and public administration becomes crucial for successful implementation. This suggests that it is necessary, but not sufficient, that e-government initiatives are accompanied by organisational re-design of state institutions and agencies. Such initiatives must be accompanied by more than some revised norms of intra-government interactions. Rather, e-government has as a fundamental character the ambition to extend the scope of participation and provision for public access to government information (transparency) and for involvement in policy making. This includes stronger mechanisms of accountability and the possibility of real monitoring by the citizen and other non-government organisations. E-government then is the use of the Internet and associated ICTs for the provision of government services, 'covering changes of governance in a twofold manner: 1) transformation of the business of governance, i.e. improving service quality and delivery, reducing costs and renewing administrative processes; 2) transformation of governance itself, i.e. re-examining the function of democratic practices and processes' (Aicholzer & Schmutzer 2000, p. 379 in Devadoss et al. 2002, p. 255). The following dimensions to such a transformation can be identified:

• *Private sector dimension*: to reduce costs by improving the functioning of market mechanisms so as to increase transparency in contractual relationships, for example in tendering and procurement, and to transform government agencies into self-governed organisations with more freedom of decision making and responsibility over the allocation of resources.

• *Civil society dimension*: the creation of an efficient ICT infrastructure to facilitate the networking of the nation such that institutions of civil society and other non-government organisations can be trusted to be delegated for the provision of some government services without problems of incompatibility, but based on their potential for responsive service delivery.

- *International dimension:* the potential for inter-government communication in the future will be enhanced. For instance, intelligence could be more easily shared between governments to fight crime and to prevent terrorist activities, as well as to support services for an increasingly mobile population – for example in health care and social security.

- *The role of the state*: e-government (potentially) can re-shape the business of governance by moving forward a pluralistic state model, which is strong and able to steer all members of society by effective regulation. The promise of more direct participation in policy-making as a way to create more effective democratic processes is at the core of the many e-government efforts.

In similar terms a recent United Nations report characterized e-government as implicated in substantial programmes of reform, 'IT [i.e. Information Technology] carries the prospect of major reforms in the whole field of governance and public administration' (UN 2001, p. 114-115) including: more efficient and effective public management; more accessible and better information for the public and the possibility of building partnerships for interactive and participative governance. E-government is thus expected to benefit the state by drawing together the public sector, civil society and international actors, as well as by improving consultation with, and participation by, all spheres of society and achieving a more participatory process of governance and decision-making (The Economist, 2003). The resulting inclusion of a wider variety of actors and mediating bodies in the workings of government is relevant for a number of reasons. Civil society institutions may, for instance, provide a service for a lower cost since these organisations normally have lower overhead costs because employ volunteers on a short-term contract basis. More reliable data collection and analysis for policy formulation will result as a consequence of being specialised in a given local context. These organisations may also be able to provide feedback about policy effectiveness during policy implementation, and thereby be able to aid the formulation of better policies in the future. Indeed, feedback about the effect of policies may contribute significantly to better (or good) public governance as well as increasing the possibilities of better policy enforcement in the future.

Innovations in Public Governance

The current high profile of e-government should, however, be seen against a longer historical perspective. This is not the first time that the need to renew public administration and service delivery systems, or the potential of ICT, has figured as a prominent issue in the agenda of governments. Rather e-government could be considered as an attempt to move forward along a path already initiated some time ago. The Weberian form of bureaucratic administration, intended as centralised, hierarchical, and top-down has undergone major crisis and critique throughout the 20th century and in particular in the late 1970s and 1980s. Attacked for its inefficiency, for the impossibility of measuring performance and holding accountable public officials, 'old type' bureaucracy has been seen as static and unable to adapt to changing circumstances. Barton (1979, p. 28-29), commenting on the causes of the 'bureaucratic maladies' in the public sector, mentions the following problems: 1) the adoption of rigid rules and the lack of managerial discretion (preventing efficient and innovative action); 2) the impossibility of firing incompetent workers and rewarding competent ones; 3) the perverse incentive system (reward being given for the expansion of budget and staff regardless of cost and benefit to the public); and 4) the 'irrational' decision processes (because not linked to any 'cost/benefit' type of analysis or material incentive) compared with those of market oriented businesses.

This trend has created a large body of literature under the name of New Public Management (NPM) (Christensen & Laegreid, 2002; Ferlie et al., 2001; Fortin & Van Hassel, 2000; Lane, 2000; Larbi, 1999). Hood (1991) points out that NPM does not have a single intellectual provenance, with on one side the influence of the New Institutional Economics (NIE) while on the other the rise of Managerialism. Still, both advocate reform that works through the construction of appropriate incentive structures and an increase in user choice through contestability as the solution to address the problems of the 'old' bureaucratic structure in the public sector. Against such an analysis, Osborne & Gaebler's (1992) in their book 'Reinventing Government', present anecdotal evidence from the USA proclaiming the benefits of reforms proposed for the innovation of public governance when coupled with the use of ICTs. Osborne & Gaebler (1992, p. 306) report the creation of more efficient and information driven mechanisms for government, for example training and adult education markets based on the use of 'smart' credit cards, electronic information kiosks and a computer system holding the key data on the performance rating of providers across the country. Heeks (1999) similarly parallels the appearance of e-government with a crisis of the public sector that can be addressed only in consideration of such reforms and asserts that the delivery of these reform components depend critically on a more overt role for information and a greater use of ICT.

These ideas have influenced many programmes of reform in western governments, generally grounded on a neo-liberal (or 'new right') ideology (Weiss & Barton, 1979; Flynn & Strehl, 1996; Hodge, 1996). Such reforms can be summarized under four broad headings: efficiency, marketisation, accountability and decentralization (see figure 1). *Efficiency* is to be reached by improving the input to output ratio, thus reducing unit costs, decreasing staff if appropriate, and adopting new methods of working.

Marketisation prescribes the shift from vertical hierarchies of command and control to horizontal contractual relationships within (and beyond) the public sector, revolutionizing contractual relationships in procurement, tendering and delivery of services. *Accountability* makes public officials more accountable for their decisions, based on the effect that these have on social welfare, and controlled by performance measures and quality criteria under the same labour market legislation as private sector workers. Finally, *decentralisation* advocates the transfer of decision making to lower levels of the public sector and the creation of more autonomous units within and beyond government to stimulate initiative, increase local responsiveness and provide tailored local solutions. An important element in this literature is the emphasis it places on the creation of more effective organisational arrangements to increase the state's ability to offer services (if not itself provide them), using novel institutional arrangements, increasing the use of market-oriented mechanisms, and introducing the concept of 'partnership' between the public and the private sector as a way to share risks and expenses of experimentation.

	Decentralisation -reallocation of responsibilities from central to local authorities -being local -devolution	
Marketisation -competitive tendering -world's best practice -contracting out -contract monitoring -risk sharing	**E-government/Shared dimension** -performance measurement -management by objectives -re-inventing govt. -commercialisation -customer/citizen focus & participation	**Efficiency** -managerialism -Business Process Reengineering
	Accountability & Transparency -performance management -program budgeting -citizen focus	

Figure 1. The Four Poles of NPM: Reforms in Government and the Location of E-Government

The Rational Assumptions Behind Private Sector Models

One of the key ideas that underpin e-government, drawing from NPM, is the assumption that models from the private sector can be transferred with benefit into governmental activity. In part this is presented in functional terms, with private sector administrative and managerial practices seen as relevant and appropriate. But it goes further, and is often presented as a broader and more encompassing move to transfer a model of governance itself from one sector to the other. Although the tenets outlined above, drawing from private sector models, are aimed at increasing organisational effectiveness, there is far less mention of the key element identified in the previous section, participation and feedback. In the private sector marketing activity, surveys or analysis of sales figures provides such input, in the context of government organisations feedback means allowing more participatory interaction and involvement of citizens in the way in which the government operates and provides its services. Such consideration is not reflected much by NPM models (beyond a loose rhetoric), nor in actual experience so far, but it is of great importance particularly because of the natural monopoly status of many government services (such as driving licences) and because citizens are not always voluntary customers (such as income tax). Convincing citizens to welcome a switch to electronic services, with all the issues of confidentiality and security of information, requires a cultivation of trust and a careful shaping of services to meet citizens needs.

We tend to assume that private sector organisations are primarily action oriented in delivering their products to identified markets as quickly and cheaply as possible, and thus strive to achieve governance that enables an appropriate internal alignment. Private sector organisations, however, are also bureaucratic and highly hierarchical and in this way are able to function in an environment

marked by uncertainty, breaking large and complex operations into smaller, less complex units. Political organisations (organisations within the polity which include government itself as well as relevant private sector and civil society interests) are in this respect rather different. Their concern is with policy making and enforcement, and they operate by collecting and analyzing information from various sources, shaping and communicating it in a situation of imperfect information and uncertainty. Thus, the emphasis is not only or particularly on an internal decision-making process that delivers products to market, but on various levels of interactions, interdependencies and knowledge sharing within a wide community of governmental entities and the recipients of the services these organisations support (or their representatives).

For all kinds of organisations environmental uncertainty and risk are reduced when activities are routinised and repeated, thus becoming predictable and controllable. For this purpose, organisations put in place selective mechanisms of 'reality manipulation' through codification (Katz & Khan, 1966) and categorisation, and seek information accordingly to support activities. In this, private sector organisations are considered (or imagined) as behaving more 'rationally' than other types of organisations. These assumptions are the central elements of the Western tradition of planning, which see the decision-making process of rational actors as a sequence of interrelated stages within a goal-seeking system (Flood & Jackson, 1991). In the information systems discipline this paradigm has strongly influenced the engineering of information systems within organisations but is considered by some as part of that 'hard' systems thinking which has led many large IT projects to fail. Just to mention some of the problems identified we find lack of flexibility, poor knowledge of organisational linkages and interdependencies and lack of wide participation in the planning process (Ciborra, 2000).

With the implementation of the types of reforms discussed here, by delegating authority to local agencies, the power of the policy maker at the central level is both restricted and enhanced. Delegation of authority may often increase the need to report to the higher level of the hierarchy, augmenting the sheer quantity of information circulating in the system. Although this is generally perceived as of benefit, it means introducing new ways of codifying and categorising information. But, if true adaptation to local circumstances is in the agenda, then not all categories will be equal or applicable across localities. Thus to some extent fragmentation increases, hardly improving the quality of information for aggregate analysis at the central level or service delivery at the local level. The opposite effect is also seen, with central authority reluctant to share information lower down the hierarchy or beyond its boundaries. For example, in a recent OECD survey of knowledge management in central government it was reported that less than 50% of central government agencies share knowledge with local agencies (OECD 2003).

To be sure, private sector organisations are not democracies; plans are often made at the top and then implemented down the hierarchy through the practices of consensus building, awareness training and change management. This raises questions about the extent to which these models, practices and underlying assumptions can support democratisation processes in government or can allow a more participatory interaction between citizens and policy makers so as to craft better policies to increase social welfare. Despite this, many private sector organisations and leading consultancies, as they become drawn into e-government initiatives, present ICTs as facilitating decentralisation of responsibilities and decision making and as able to drastically reduce the 'layers' of the organisation. These organisations are among the key advisers for e-government related reforms, and advocate, in general, the need for change management initiatives and the use of such business based schemes of reform as Total Quality Management (TQM), Customer Relationship Management (CRM) and Business Process Reengineering (BPR) (Deloitte Research, 2001; Hammer & Champy, 1993). Others (HPG, 2000; CFID, 2002: 54-61) echo similar private sector wisdom, such as the need for strong leadership, sound management skills and a clear vision, equally the conventional dogmas of management consultants.

In their own ways, TQM, BPR and CRM urge organisations to re-design following key 'value drivers', identified by relying on the participation of the internal users of the information infrastructure and the external users of the products or services provided. ICTs are central in these methodologies for the initial data collection, analysis and identification of the most valuable areas of business, and subsequently to ease the communication across the newly designed horizontal (or 'functional') divisions of the organisation. As employees and citizens become empowered with decision-making abilities, it is expected that alignment, compliance, efficiency and predictability will increase, leading to better policy formulation and easier implementation.

Implications for Policy and an Alternative View

These considerations are important because policy-making is inherently dependant on the governance structures that will be created after the reforms, and have far-reaching implications for the way in which decisions affecting the lives of millions of people will be taken. The outcomes related to fragmented mechanisms of information sharing and decision making will have a direct influence not only on the constituents of the state (such as organisations, individuals and political interests), but also on future decisions and policies. Badly re-designed activities can destroy the morale of people working in any organisation, technical

failures can generate catastrophic outcomes for trusting technology in the future, but crucially a failed understanding of government's essential operations and activities might backlash in further political fragmentation and conflict. For example, standardising procedures and applications may mean that 'exceptions to the rule' could increase instead of being reduced giving more power to factions of bureaucracy rather than to citizens, who may retaliate by rejecting e-government services. Conversely, a well functioning system can be effectively utilised for purposes which were not intended when it was designed, but that can positively impact social welfare policies.

In order to be able to undertake e-government reforms governments need more than good technology and compliance from citizens and civil society, they need legitimacy and partnership in the way reforms are perceived as linked to effective monitoring of the promotion of welfare-increasing policies and government accountability. E-government *per se* might not be enough to provide this, risking a backlash which could waste the high sunk costs of software, hardware and infrastructure. Effective participation is the issue needing more attention as 'empowerment' and inclusion in decision-making happens in many forms, and mechanisms can be created to apparently transfer or diffuse decision-making power, but without real control on decision-making.

Participatory budgeting, following the example of Porto Alegre (Brasil), offers a positive example and provides an alternative view of how ICTs can be effective in increasing social welfare. Based on an understanding that that decisions regarding the use of resources are important, participatory budgeting, seeks effective involvement leading to policy responsiveness. In this case, using the Internet, budget information can be accessed by the public, while 'citizens and civil society organisations directly participate in making budget decisions through a year-long cycle of mass citizens forums, [and] thematic assemblies addressing specific issues' (Heimans 2002, p. 6). Among the most spectacular results of Porto Alegre attributed to participatory budgeting have been policies which have resulted in increasing social welfare. The number of household with access to water increased from 80 to 98%; the number of children served by municipal sewerage systems increased from 46 to 85% and, perhaps most strikingly, tax revenue increased by 50% (Shneider & Goodfrank, 2001, in Heimans 2002, p. 37).

Another example comes from Ireland where the successful operationalisation of one e-government project, the Irish Revenue on Line Service (ROS), made a positive contribution to the environment and added to the perceived success of the initiative (Cross, 2003). Reform of back-office tax operations was not the usual horror story of large scale ICT projects thanks to the relatively small-scale level of the initiative, resulted in a service that now handles 10% of income tax returns and payments. The ROS represents, more interestingly, an example of how governments can use such systems to enhance welfare and pursue new policies. Since the ROS was functioning well, it was also able to rapidly host a system to make mandatory electronic payments to enforce a 15 cents levy on each plastic bag handed out by shops. The result was immediate, 'one billion plastic bags vanished from Irish streets' (Cross, 2003).

Conclusion

This paper has reviewed the most relevant issues driving reforms in Western governments linked to e-government projects. Along the spectrum of the reforms, e-government is depicted as a way to further expand the NPM rationale initiated in the late 1970s and now enriched by private sector methodologies such as BPR, TQM and CRM. Still important distinctions between public and other forms of governance have been highlighted and the relevance of such transfers from sector to sector questioned. Not only have problems related to the use of such methodologies and approaches to organisational change in private sector organisations been widely reported, but despite other cases of success with these methodologies in such contexts, private sector organisations are not democracies, and implementation is essentially non-participatory. The State is different; the state needs legitimacy and effective monitoring as much as compliance and in the case of e-government participation is central. The issue for government is then who is allowed to participate, how and based on what governance arrangements. The example of participatory budgeting in Porto Alegre is presented as a relevant alternative to the dominant paradigm providing also interesting empirical outcomes to justify e-government's potential for promoting social welfare. Similarly, the Irish ROS shows how a new service, when functioning well, can provide an effective policy enactment platform and deliver results which were un-intended or unplanned when the project started.

As e-government is applied in different contexts, following various methodologies and underlying assumptions where reference systems are often radically different from each other, some directions for future research and practice are worth highlighting based on the cases previously outlined. Some characteristics can be identified to explain the perceived success of the initiatives. For instance, the *ex ante* simplicity of the administrative Irish Income Tax system and the experience of collective mobilisation of Porto Alegre are some, but cannot easily be replicated. However one of the issues both cases point to is the importance of how

the new services were designed. Especially as to benefit the citizens by allowing their participation, but also providing more effective mechanisms of policy enforcement and effectiveness for governments, such that not only the distribution of the benefits, but also of the costs of specific policies to its intended beneficiaries were allowed. In Brasil, the use of the Internet in participatory budgeting has allowed the distribution of the monitoring costs on the citizens of Porto Alegre. In Ireland, electronic mandatory payment systems allowed the levy to be passed on to the customers, which in this case was the major factor of the effectiveness of such policy in terms of reducing the number of plastic bags in the cities. Hence the cases indicate that a serious effort of future research in this area must be to explore which policies and institutional arrangements work better to foster participatory processes and the delivery of new services, which can be made compatible also to support other welfare increasing policies. In so doing it might be possible to identify which factors are to be held responsible for effective enforcement power (in terms of compliance, legitimacy and monitoring) of the central government over the implementation by local agencies and which factors could deter it. But, crucially, the ultimate aim must be to see how more inclusive governance structures can be created through ICTs for better decision and policy-making.

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