

E-government as institutional transformation

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1. INTRODUCTION

Throughout the world, e-government has become a key element of modernization and government reform programs. E-government has put a spell on public administration from Singapore to Uruguay and from the United States to Hong Kong. This worldwide movement is interesting from the perspective of information science and public administration science. For example, an interesting aspect of the worldwide e-government movement is the remarkable similarity between the e-government programs. On the surface, e-government initiatives appear to be somewhat similar throughout the world. Governments have redesigned their social security organizations, tax departments and education agencies to be able to put informational and transactional services on the world-wide web. Of course, different nations work at a different pace towards this goal and some countries are far ahead (like Singapore, Hong Kong and Korea) while others lag behind. But still the similarity between the programs and the direction in which e-government evolves is striking. E-government consultants and specialists tell us that it is only a matter of time before every government has made the transition to e-government.

How inspiring these digital dreams may be, the practice of e-government is much more a question of ‘muddling through’. This side of e-government is not very prominent at international conferences. We are dazzled by the success stories and case studies, sometimes told by the project champions (consultants and civil servants). Their principle message is: ‘In our country we used to have paper government in this policy sector (education, tax, social security), but now as you can see (via a direct Internet connection) we now have e-government’. However, as impressive these case studies may sound, their resemblance sometimes becomes boring. This resemblance may also point to another phenomenon. Perhaps only the easy part of e-government has been achieved in most ‘premier league’ countries. After some basic transaction and information services have been put on the web, we tend to hear less about these e-government programs. And, in fact, in some countries we even observe a stagnation.

What causes the stagnation of e-government after the primary public services have been put on the world wide web? Is it because of the economic recession that innovative programs are being postponed? Do obscurantists and Luddites dominate public administration outside the basic services? Do we observe the usual implementation problems which are well known in public administration science? Ever since Wildavsky’s pioneering work on implementation we know that policy programs are seldom carried out according to plan. Is it just a matter of having more patience?

In this paper we explore three possible groups of explanations. First, we assess whether the stagnation has to do with the *technology*. Does the technology not work adequately or are the beautiful simulations and prototypes difficult to implement in real organizations? Second, we look at *organizational* barriers. Do bureaucratic politics hinder the exchange of information across organizations? Is it the power of professionals with an old-fashioned idea that implementing law should be a matter for humans instead of machines? Finally, we deal with the possibility of fundamental *institutional hindrances*. Does e-government clash with fundamental values that underlie public administration?

We conclude that the three groups of explanations are relevant but observe that the institutional perspective receives little attention in debates on e-government. Patterns of signification, domination, and legitimation are neglected. We argue that ICT-students should learn to reflect on institutional transformations in government and, that a public debate about the institutional transformation of government is needed to make sure that we conclude with the kind of government we want.

2. E-GOVERNMENT BEYOND EASY SUCCESSES

Governments all around the world have discovered the Internet and are using it to inform their citizens. Most governments have a central portal which offers access to a great variety of information about the government (Janssen & Rotthier, 2003). In that respect one could argue that the openness of government has increased and citizens are better informed about the dealings of their governments. However, the promises of e-government go much further than that. ICTs will not only improve the dissemination of government information but hold the potential for interaction, transaction and, finally, transformation. So far, however, not many governments have come much further than information and interaction (Accenture, 2002; Cap Gemini Ernst & Young, 2003; Gartner Group, 2000; UN-ASP, 2002).

Janssen en Rotthier (2003) have conducted a comparative study on e-government implementation in eight countries.¹ Most government initiatives do not pass the point of the dissemination of information and interaction with citizens. Janssen en Rotthier show that the countries main aim is to realize e-service delivery but fail to realize their aspirations because they are still faced with deficient possibilities for a unique online authentication of citizens. Other technological requirements include the identification of citizens in the back office, security issues and a service delivery architecture. Besides the security issues, there hardly seem to be any technological barriers for e-government. The necessary technology for online transactions has already been implemented in the private sector. Another technological barrier may be the limited number of citizens who have access to the Internet. Especially in Western Europe, the United States and Southeast Asia this can no longer be a valid argument. Finally, the bandwidth has enormously increased during the last decade. Nowadays even more sophisticated services can cheaply be distributed via the Internet.

At this point, proponents of e-government will emphasize that governments will need to tackle these technological issues. This will open the way for further development of e-government and create the opportunity to move on to the transaction and transformation phases. One may wonder, however, whether these technological issues are the only barrier for the further development of e-government. Research has convincingly shown that the successful use of ICTs requires more than adequate technologies. Organizational factors influence the success of technological development (see Clarke, Lehaney & Evans, 2003, for a vivid illustration).

3. THE ORGANIZATION: RESISTANCE AND LEADERSHIP

Adequate use of technologies requires an adequate organization. A classical adage of the IT business perfectly expresses this need: 'If you automate a mess, you get an automated mess'. The importance of organizational change has been most clearly expressed by the Business Process Re-engineering (BPR) School (Hammer & Champy, 1993; Davenport, 1993; Taylor,

Snellen & Zuurmond, 1997). Proponents of BPR emphasize that we should deliberately put aside the existing system and redesign the process on the basis of the original meaning and its mission.

The importance of organizational change for a transformation from government to e-government is clear. These changes especially concern standard processes for the production and distribution of public services (benefits and allowances, permits and grants). These processes have to be rationalized and standardized. Also, the organization structures have to be adapted to the redesigned processes. Although the redesign process can be rather complicated (for example, the dissemination of government information via one portal), there are many examples of successful redesign. Organizational change can be hard to achieve. Within organizations, professionals often resist the implementation of information systems because they feel that their autonomy is threatened (Zuurmond, 1994). On the interorganizational level, organizations are also hesitant to cooperate (Homburg, 1999). In public administration, cooperation across policy sectors is often considered to be difficult.

Change management is a key concept in theories on business process redesign. Management has to find ways to guide the organization through a process of change. This change seems to be hard to achieve, harder than in the private sector. Because of the lack of market pressures and incentives in public administration, change and innovation have to be explicitly enforced. In addition, public administration as an institution functions rather conservatively (see for example Jacobs, 1994). Caldwell (2001) suggests that the role of leadership in promoting this change is crucial. Strong leaders in public administration should have a firm view on e-government and convince employees and public organizations to proceed on the route to e-government. Furthermore, they need to be patient in order to implement the necessary transformation of persistent standard operating procedures.

The question is whether strong leadership and adequate change management are sufficient. Is public administration lagging behind the private sector because there is a lack of strong leaders and inadequate change management? Or are there other factors to be considered? We suggest that the change from government to e-government is not only slow because of a lack of technological solutions and strong leaders but also because meaning, power and norms underlie present forms of government. These forms generally change slowly. To understand the change from government to e-government we need to look at these institutional factors. Of course, 'organization' and 'institution' are two concepts that are connected to one another. While 'organization' refers to the level of processes, structures, strategies and systems, the concept of 'institution' encompasses the fundamental values, norms and belief systems that are deeply embedded in the organization's patterns of signification, domination and legitimation.

4. GOVERNMENT'S CORE INSTITUTIONS: OBSCURANTIST OR MISUNDERSTOOD?

Although the alleged inherent institutional meaning of information technology has been disputed ever since its existence, there is hardly anybody who still holds the naive belief that information technology is a neutral instrument. An early interesting institutional approach of the interaction between information technology and its (organizational, cultural, and political) context can be found in the work of Shoshana Zuboff (1988). She argues that information technology always has two dimensions: an intrinsic dimension and a situational dimension.

The intrinsic dimension refers to the potential of change that is connected with technology. At the same time, the changes that occur cannot be attributed solely to the technology. She argues: ‘Between the turning of the rim and the emergence of a new pattern, there is another force that infuses the final configuration with meaning: the human activity of choice’ (Zuboff, 1988: 388).

In her widely acclaimed article Orlikowski (1992) has used Giddens’ structuration theory to understand the relation between information technology and organizations. She stresses the duality of technology: institutional properties influence humans in their interaction with technology and at the same time interaction with technology influences the institutional properties of an organization. Following Giddens’ work, Orlikowski indicates that there are three fundamental elements of social interaction: meaning, power and norms. Interpretative schemes play a key role in constituting and communicating meaning and result in structures of signification. Power is understood as ‘transformative capacity’ and results in structures of domination. Norms are expressed in normative sanctions and result in structures of legitimation. These three structures structure social interaction but are also reinforced and challenged through social interaction.

Institutional theory has always played a key role in the science of public administration. This paper is too confined to deal with all the relevant institutions. Some of the most important institutions – structures of signification, domination and legitimation – are discussed to indicate how these institutions work and why they are so important to understand the transition from government to e-government. The stagnation of e-government may be due to the following institutions:

- *Division of powers.* The division of executive, legislative and legal powers is a core institution in public administration. This division is regarded to be crucial in preventing the abuse of public authority. In e-government, the division of powers may be challenged since, from an ICT-perspective, it may be rational to integrate information systems of executive, legislative and legal powers. This seems more efficient but it leads to questions concerning safeguards against the abuse of public authority.
- *Rule of law.* The rule of law provides safeguards against the power of state organs in western societies. Governments do not only function in democratic contexts but also have to abide by general rules. Governments cannot decide freely on their actions and decisions, but they are disciplined by legal principles, such as legal security and legal equality. In the context of e-government, these rules can form obstacles to effective and efficient information systems and from an ICT-perspective these rules often seem irrational.
- *Government by the people.* In essence democracy is based on government by the people and for the people. This implies that government decisions concerning the design of information systems can be altered when the people, for example through elections, have indicated that they do not agree with these decisions. From an ICT-perspective government can then seem to be lacking stability and this can hamper the development of large information systems.
- *Bureaucracy.* The term ‘bureaucracy’ is often used in a derogatory manner but also embodies important values like neutrality, equal treatment, and democratic control. Hierarchy is an essential element of bureaucracy but communication technologies can challenge this hierarchy. Bureaucracies have been criticized for their failure to deal with dynamic environments and network organizations seem

more rational from an ICT-perspective. The uncertainty is, however, whether neutrality, equal treatment, and democratic control can be preserved in network organizations.

These institutions can help us understand why good technology and strong leadership may sometimes not be sufficient for a transformation to e-government since this transformation takes place within these institutional structures. The structuration theory and Orlikowski's interpretation of it also stress that structures are not only reinforced but also challenged in social interactions. This means that the transformation from government to e-government can result in institutional transformation.

5. GOVERNMENT AS AN INFORMATION MACHINE AND A SEAMLESS WEB

Since we are now in the middle of a process of institutional change in government, it is difficult to grasp the essence of the changes. Snellen & van de Donk (1998) have tried to catch the essence of the present institutional changes in ten 'statements'. These statements refer to themes such as the territorial foundations of the state, the balance between the public and the private sphere, discretionary power of bureaucrats, the foundations of bureaucracy and the structure of policymaking processes. They admit, however, that their answers are still somewhat ambiguous.

Marshall McLuhan's (1964) 'the medium is the message' can help us to understand the present institutional transformation in government. Following Marshall McLuhan, Neil Postman argues that a specific ideology is hidden behind every technology. Every seemingly neutral technical instrument is tied up with (hidden) ideological bias. Although one is able to use a hammer in numerous ways, to a man with a hammer everything looks like a nail. Postman proceeds: 'To a man with a pencil everything looks like a list. To a man with a camera, everything looks like an image. To a man with a computer, everything looks like data. And to a man with a grade sheet, everything looks like a number.' (Postman, 1993)

According to the ideology of information technology, everything is essentially a matter of information collection, information processing and information dissemination. When we believe the e-government ideology, government essentially becomes a matter of information. Whether this is done manually or by computers, it will be the same process. Citizens are better served when the computers process the information, because they are more efficient and more reliable. However, government is not only about efficient service delivery but also about competing values. Will there still be room for fundamental debates on competing values in e-government or will all debates be framed in terms of efficient information processing?

The ideology behind communication technologies seems to be 'making connections' (Sproull & Kiesler, 1991). Boundaries disappear when communication technologies are introduced. These boundaries concern boundaries between countries, boundaries between the different powers within a state and boundaries in organizations. Government may turn into a seamless web. This seamless web will not be limited to the public sector: communication technologies will also increase the connections with citizens and the private sector. Yet, as Castells (1996) describes, not everybody will be included in this web. You are either in the web or outside of it. The excluded may turn to crime, fundamentalism, and even terrorism.

6. DEBATING THE FUTURE OF GOVERNMENT

In line with McLuhan's 'the medium is the message' we indicated a probable outcome of the institutional change of government. In line with Giddens' structuration theory we want to emphasize that these outcomes are not deterministic. Orlikowski (1992: 405) indicates that technologies are interpretively flexible. Shaping of e-government takes place through the actions of a wide variety of actors ranging from ICT-specialists to public managers and lawyers.

This leads us to the following questions. How we can use the interpretative flexibility of technologies to reshape public institutions? Can we avoid the transformation of government to a single-minded information machine? Can we avoid large groups of people being excluded from government? What can we learn from the history of current institutions and how can these lessons be used in the formation of e-government?

We think that a public debate on the transition from government to e-government is required. Institutional changes will catch us by surprise as long as the debate about e-government is only seen in technological and organizational terms. E-government is not only a government that is more effective and efficient, e-government is about new structures for signification, domination and legitimation. Because e-government is a political and institutional movement, it needs to be politically and institutionally debated (see for example Zouridis & Thaens, forthcoming). What kind of structures do we want?

Shaping a public debate about the future of government is not easy. It is extremely difficult to get a grasp of the changes that are taking place around us. But the alternative seems even less preferable. Up to now, the institutional transformation of our governments takes place implicitly. Currently, scholars, consultants, and public managers concentrate on the instrumental and technical levels. We think that a debate should take place in a formal setting such as in Parliament and in universities but also in informal settings like on the Internet. Furthermore, we should not only focus on a rational debate but should stimulate artists and science fiction writers to join in the debate. This debate will not result in collective decision-making but will enhance the level of collective reflection and therefore, hopefully, improve decisions on e-government.

Reflections on the nature of e-government should also be integrated in education programs. Students should learn to reflect on these institutional changes and discuss the consequences of these changes. To a large degree, the ICT-specialist will be shaping our future governments. If these specialists do not take the basic institutions of public administrations into account, their attempts to implement e-government beyond the basic services will fail. And if they do succeed, the result will be even worse because the ICT-specialist would then really turn public administration into an information machine.

¹ Belgium, Canada, Finland, France, Germany, Ireland, the Netherlands and the United Kingdom.

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