Managing Information Exchange in E–Government Initiatives

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INTRODUCTION

In the literature on e-government, the focus is predominantly on the organization of the front office and on the interaction among governmental agencies and citizens (Chadwick & May, 2003; Edmiston, 2003; Tat-Kei Ho, 2002). However, in order for e-government initiatives to be successful, back-office streamlining also has to be taken care of (Bekkers & Homburg, 2005; Homburg, 2005a). In a sense, back-office operations are the backbone of any form of e-government, and they may require information exchange and knowledge sharing among various units, departments, or organizations.

The e-government phenomenon occasionally has paved the way for stirring rhetoric of technological and institutional change. For example, Wimmer, Traunmüller, and Lenk (2001) predict that "organizational boundaries will fade and give way to innovative organizational design. In this way, cooperation between administrative agencies will span wide: over distances, across organizational boundaries and even across hierarchical echelons" (p. 1).

Actual e-government applications, however, show that the practice of e-government may not be as attractive as some of its benevolent proponents might claim. Back offices can be regarded as networks of organizations in which goals necessarily do not overlap and in which interests may collide. In practice, in these networks, information is the primary medium of value and exchange (Davenport, Eccles, & Prusak, 1992), and relatively uncontrolled sharing of such a powerful resource threatens information monopolies and may provide those organizations who receive information with significant power gains (Bekkers, 1998; Homburg, 1999, 2001; Homburg & Bekkers, 2002; Markus, 1983). Consequently, existing dependencies in organizational networks might be affected, and it can be expected that the exchange of information in back offices invokes a complex mixture of cooperation and conflict (Cunningham & Tynan, 1993; Homburg, 1999, 2001; Homburg & Bekkers, 2002; Knights & Murray, 1992; Kumar & van Dissel, 1996).

In this article, I address the following research question: What does the nature and dynamics of interorganizational relations mean for the development and implementation of e-government information systems, and what methods and strategies are used to design and implement these systems? The focus in the analysis is on the interorganizational relations that are mobilized through the integration of various back-office systems (Bekkers & Homburg, 2005; Homburg & Bekkers, 2002). In the remainder of this article, I analyze existing e-government initiatives and, more specifically, information relations among various back offices, using a political economy view on information exchange (Homburg, 1999), and I explore methods and strategies of ICT process management in policy networks (de Bruijn, ten Heuvelhof, & In 't Veld, 2002).

BACKGROUND

Many policy processes are fragmented over several administrative organizations. In practice, e-government requires information exchange and organizational redesign in the back office. From a strictly instrumental point of view, the information relations among various organizations can be modeled in terms of secure XML document containers (Greunz, Haes, Schopp, & Stanoevska, 2001) or, in terms of conversation rules, conversation classes and continuation rules using speech act theory (Heesen, Homburg, & Offereins, 1997).

At an institutional level, however, other sets of questions arise. These questions are related to the complex mixture of cooperation and conflict that emerges when organizations start exchanging information across traditional organizational borders (Bekkers & Homburg, 2005; Homburg, 1999, 2001; Knights & Murray, 1992; Kubicek, 1995; Kumar & van Dissel, 1996). In order to illustrate some of these questions, I present some anecdotal evidence of difficulties that arise when organizations exchange information across organizational boundaries. Since these difficulties are not typical for the public sector, I present anecdotal evidence from governmental organizations as well as from private sector organizations.

A private sector illustration is the TransLease information system, a system used by 1,000 British repair agents working for vehicle leasing and contract hire companies (Allen, Colligan, Finnie, & Kern, 2000).

TransLease uses standardized data formats throughout the network (which also enshrine the rules of trade) as the backbone of the system. In practice, actual use of the system proved to be far below expectations. An evaluation showed that the TransLease system did not provide the envisaged mutual benefits to its participants. "A dominant theme for repair agent complaints was their perception of an 'unfair' balance of power, which meant they felt that lease companies would tie them into a system that would reinforce and amplify existing power structures" (Allen et al., 2000, p. 10).

A public sector illustration is the Criminal Justice System in the United Kingdom (Bellamy, 1998). The UK has heavily decentralized and compartmentalized criminal justice agencies, including, for instance, the police, the probation service, and the courts. Early work on automated support centered on an elaborate dataflow model that showed the benefits of a new information system. It was soon clear, however, that the costs and benefits were divided unevenly among the parties involved and that the specific cultures and professional norms of the various agencies were not reflected in operational methods and information management priorities. Therefore, a more piecemeal, incremental approach was chosen, in which various professional groups (lawyers, police officers, probation officers, and prison officers) were allowed idiosyncratic discourses embedded in distinctive data definitions and standards, yet these distinctive domains were very selectively connected using EDI interfaces and e-mail links[1].

The TransLease and CJS cases are, to a certain degree, modest examples of problematic initiatives concerning information exchange among organizations. Obviously, in these kinds of situations, more than mere exchange of information is at stake. Beyond a rather neutral, technocratic account of the development of the information systems in the previously mentioned cases, information exchange takes place in political economies (Homburg, 2005b); with the exchange of information, dependencies among organizations are affected, positions are challenged by ICTs, and partly unintended and very fundamental questions about accountability are raised within the network of cooperating organizations. In this context, it is not uncommon for politicking, hoarding of information, or sometimes even downright sabotage to occur (Homburg, 2005b). Therefore, managing information exchange in political economies requires specific management strategies and tactics, which are analyzed in the subsequent section.

INFORMATION MANAGEMENT IN POLITICAL ECONOMIES

Analysis: Case Studies of Interorganizational Information Systems

In this section, the following two case studies of the development of interorganizational, back-office information systems are presented: the development of the Dutch Municipal Register of Citizens' Residential Data and the development of the Dutch Vehicle Registration. The analyses presented here are based on secondary analyses of evaluation reports of the two systems and on interviews and observations.

Case 1: Dutch Municipal Register of Citizens' Residential Data (GBA)

The Dutch Municipal Register of Citizens' Residential Data (GBA: *Gemeentelijke Basis Administrati*e) is an authentic registration in which name, address, date of birth, sex, nationality, and so forth of residents in The Netherlands are recorded. Since the 1970s, there has been a lot of discussion on the question of what an authentic registration of residential data should look like. Initially, the discussions revolved around the idea of a centralized register. However, a centralized architecture of such an information system raised fundamental issues concerning the protection of privacy and, moreover, concerning the institutionalized relationships among various levels of government (i.e., the central level and the local, municipal level). In 1984, a decentralized initiative—GBA—a was launched. The discussion on GBA involved the municipalities, which, at that time, owned paper-based registers: the Netherlands Association of Municipalities (the municipalities' interest association), the Ministry of the Interior, and a Project Bureau (established in 1989). The Project Bureau's original task was to develop, among other things, standardized applications on behalf of the ministry. Gradually, the idea of a decentralized register took shape. The register was to be used and partly administered by more than 500 municipalities, while the data were to be used by more than 300 public and private organizations. In the decision-making processes, with respect to the development of GBA, it became clear that various conflicts of interests existed with respect to the envisaged control over (or ownership of) the system. These conflicts existed with respect to the following domains:

- the control over and ownership of the GBA computer systems;

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