

Digitization and political accountability in the USA and the Netherlands: Convergence or reproduction of differences?

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Abstract: Does the use of ICTs lead to convergence? Or are existing differences being reproduced? This paper deals with these broad questions in the domain of political accountability in two countries and applies these questions to the level of agency accountability and political accountability systems. The results of empirical research in the Netherlands (a parliamentary system) and three American states (presidential systems) into the effects of digitization on political accountability are used to evaluate the relevance of institutional differences for explaining outcomes of technological trajectories. The research indicates that there are many similarities and few differences at the level of agencies. Government agencies in both countries record more data than before the introduction of ICTs, grant better access to recently recorded data, have not created technological warranties for protecting the authenticity of this information and cannot guarantee that the digital information will remain accessible over time. One minor difference between the findings is that websites were found to be more important for communication between government agencies and citizens and even within government agencies in the USA than in the Netherlands. The fact that many similarities and few differences were found supports the idea that government agencies in different countries are converging because of the use of the same technologies. Does convergence also take place at the level of accountability systems? There are relevant differences at the level of political principals. Principals in the Netherlands make little use of digital information and mostly rely on information in paper documents whereas principals in the USA extensively use digital information for fact-finding. Principals in the Netherlands have insufficient information processing capacity to adequately process all the digital information available to them while principals in the USA generally have sufficient capacity. Principals in the Netherlands make limited use of databases for fact-finding whereas principals in the USA, in contrast, make much use of this digital information. Overall, American principals are better capable of using digital information for fact-finding than Dutch principals. This indicates that institutional differences in ex-post oversight are reproduced in the information age. The relation between information and communication technologies and political institutions is ambiguous: agencies are converging whereas differences between political principals are reproduced.

Keywords: Political accountability, Electronic record management, Institutional differences.

1. Introduction

Are all countries heading for similar political systems in the information age? The characteristics of ICTs – transparency, connectivity, calculability – seem to drive political systems in a similar direction. Government organizations all around the world have become more transparent to citizens because of the use of websites which contain all sorts of information about government activities. The implementation of tax laws has been instrumentalized and rationalized through the use of database systems. Tracking and tracing systems are used by government agencies on every continent to monitor the activities of citizens. Does that mean that the worldwide variety in political systems is reduced?

To answer this question, we need to understand the social and organizational processes that take place around the introduction of ICTs. Digitization of government refers to the use of information and communication technologies (ICTs) by government organizations to execute their business and management processes (Fountain 2001). This means that the concept is much broader than specific transitions such as scanning paper documents or putting information on government websites. There are two dominant views on the relation between digitization and political systems. The first view – the convergence perspective – emphasizes the homogenizing effects of ICTs: the introduction of these technologies is supposed to drive political systems in the same direction. The

characteristics of these technologies determine the outcome of the interaction between technology and political systems. The second view – the reproduction of differences perspective – stresses the institutional differences between political systems and posits that ICTs will be used differently in different political systems. Social contexts determine how technologies are used. The resulting effect is the reproduction of differences in political systems.

In this paper these perspectives on the relation between ICTs and political systems are explored by focusing on a key aspect of these systems: political accountability. Arrangements for political accountability play a crucial role in western democracies by enabling that those in power are called to account by the people (Behn 2001; Bovens 1998). Accountability arrangements exist at two (interconnected) levels: the level of agencies and the level of political principals. At the level of agencies, arrangements exist to ensure proper recordkeeping to warrant accountability. At the level of political principals, arrangements exist that ensure that these principals reconstruct facts and call agencies to account. Digitization can affect these two levels. Will ICTs drive arrangements for proper recordkeeping in different countries in a similar direction? Are arrangements that ensure that principals can reconstruct facts and call agencies to account converging? Or are different impacts to be expected?

What differences between political systems exist? Political accountability refers to accountability by government bodies, agencies and functionaries to formal political principals such as Parliament, Senate, House and State Auditors (Bovens 1998). These political principals all warrant that the executive branch of government has to (indirectly) account for its actions and decisions to the people. Strøm (2000) indicates that parliamentary systems de-emphasize ex-post oversight and have insufficient monitoring capacities necessary to determine when sanctions may be appropriate. Ex-ante steering is more important in parliamentary systems. Presidential systems tend to feature institutions that facilitate active legislative oversight. This could mean that these systems have more information processing capacities and would be capable of making better use of the increased transparency of government to enhance political accountability.

In this explorative study two countries with considerably different institutional contexts are compared: the Netherlands and the USA.¹ Most important is the difference between parliamentary and presidential democracy which has implications both for agencies and political principals. At the level of the agencies, Dutch agencies are dominated by experts and their political masters do not have a direct influence on internal procedures and work processes. American government agencies are more politicized and often headed by a political appointee (Rutgers 2001). This results in a stronger focus on short-term interests in the American agencies. At the level of political principals, presidential systems put a stronger emphasis on ex-post oversight since they have less capacities for ex-ante steering than parliaments (Strøm 2000). To explore the relevance of these institutional differences, I conducted research at the national level in the Netherlands and at the state level in the USA where I investigated the impact of digitization on political accountability in three states (Connecticut, Massachusetts and New York). These states are comparable to the Netherlands in size and level of technological sophistication. The selection was limited to these three North-Eastern States for practical reasons. Findings related to states within a nation (the USA) and findings in a separate nation (the Netherlands) are compared.

The scientific goal of this research is to assess whether accountability systems in the world are converging in the information age or whether preexisting differences are reproduced. This research focuses on the differences between the Netherlands and the USA. This means that I will not analyze the differences between the different states in the USA. This does not create problems for the analysis since the differences between the Netherlands and the USA are much greater than the differences between the states.

The research focuses on changes at two connected levels that are both crucial for accountability systems (see figure 1). At the level of the agency information is recorded, stored and preserved so

¹ The empirical research in the Netherlands has been published before (Meijer 2003) but the findings have never been analyzed in comparison with data from other country. The findings are summarized in this paper and compared to the findings of the study in the USA.

that reconstructions of facts can be made. Political principals such as parliaments constitute the second level. These principals use the information provided to them to hold agencies to account. The use of ICTs influences both levels. Agencies change the way in which they record, preserve and store information. Changes in information management within agencies influences political accountability since the information that is used for fact-finding mostly comes from these agencies. This means that two specific questions can be formulated to guide this research. (1) Is the way in which agencies prepare for accountability in the Netherlands and the USA converging in the information age or are preexisting differences being reproduced? (2) Is the way in which principals hold agencies to account in the Netherlands and the USA converging in the information age or are preexisting differences being reproduced? The added value of this research lies largely in its international comparative character. This type of research is complicated but crucial for understanding the role and relevance of national institutions.

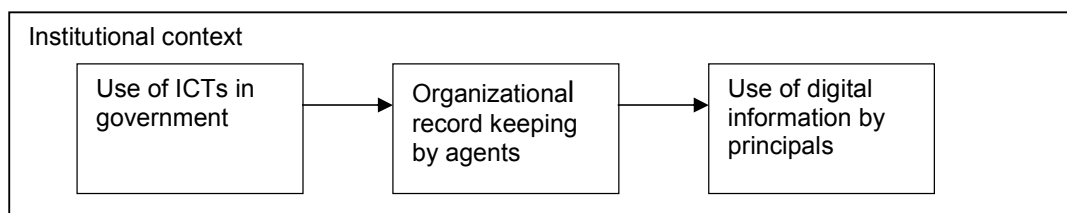


Figure 1. Research Model

2. Accountability: a key element of political systems

This research focuses on arrangements for political accountability as the relevant context. Accountability is a core concept in public administration. Political accountability is a crucial element of democratic states since it is important for the democratic control of government organizations. Citizens elect representatives to control the executive. Accountability is a key element in this control. In its most fundamental sense accountability refers to answerability to someone for expected performance (Romzek & Ingraham 2000) but it also serves as a synonym for loosely defined political desiderata, such as transparency, equity, democracy, efficiency and integrity (Mulgan 2000, p. 555; Behn 2001, pp. 3-6; Dubnick 2002). Bovens (2005) defines public accountability as a social relationship in which an actor feels an obligation to explain and to justify his conduct to some significant other. The actor, or accountor, can be either an individual or an agency. The significant other, which we will call the principal or the accountee, can be a specific person or agency, but can also be a more virtual entity, such as the general public. The object of accountability is the conduct, often decision making, of the accountor. This conduct is then compared to certain standards, or criteria, which the principal uses to evaluate the conduct of the accountor.

The quality of accountability can be evaluated from a democratic and a cybernetic perspective (Bovens 2005). The democratic perspective stresses the importance of controlling the execution of government power. Citizens delegate power to fellow citizens but require that they account for their conduct. This type of accountability has a long tradition: in ancient Athens generals already had to account to all citizens for their conduct in warfare. In this perspective, accountability functions adequately if it ensures that government officials do not abuse their power. A cybernetic perspective puts emphasis on the function of accountability for collective learning. Accountability is regarded as a feedback mechanism in a learning loop. Do policies result in the intended results? Or are adjustments required? Accountability creates room for reflection on government. Collective learning is sometimes regarded as the key to the success of democratic societies (Lindblom 1965). In the cybernetic perspective, accountability functions adequately if the performance of government is continually improved.

Accountability processes consist of three phases: the information phase, the discussion phase and the sanction phase (Bovens 1998). In the first phase the principal gathers data from various sources and reconstructs what has happened. In the second phase actions are discussed and

judged according to certain norms and criteria. The conduct that is to be explained and justified can vary enormously, from budgetary scrutiny in case of financial accountability, to administrative fairness in case of legal accountability, or even sexual propriety when it comes to the political accountability of Anglo-American public officials. In the third phase sanctions can be applied. These sanctions can be highly formalized, such as fines, disciplinary measures or even penal sanctions, but often the punishment will only be implicit or informal, such as the very fact of having to give an account in front of television-cameras, or of having your public image or career damaged by the negative publicity that results from the process.

The information phase is the central focus of this paper since this is the phase where the availability of (electronic) data is of primary concern. Fact-finding is the goal of this phase. It is assumed that before political principals can discuss or sanction government actions, they need to make a reconstruction of what has happened. A reconstruction is adequate when the reconstruction is in agreement with reality, the completeness of a reconstruction refers to the part of reality that is reconstructed.

Accountability arrangements consist of interconnected sets of rules (Behn 2001). At the level of agencies recordkeeping systems – or memory systems (Meijer 2002) – are needed to ensure that agencies can be called to account. These rules have been formalized in the form of recordkeeping acts and archival inspections that check whether agencies adhere to good recordkeeping practices. The rules also take an informal form in the rules that guide the behavior of officials within these organizations. New members quickly learn how they are supposed to record, preserve and access information. These rules may be based upon formal rules but can also extend these rules or even contradict them.

At a higher level accountability arrangements consist of rules that guide the behavior of political actors (Day & Klein 1987). How can Parliament call government to account? What information do governors have to give to state senators? These rules have been formalized and form a crucial element of the make-up of democratic systems. Additionally, informal rules have been developed that state how political principals should behave in certain situations. How should they conduct their fact-finding? What kind of information should the request from agencies?

3. Digitization of government

The use of new instruments by government agencies fundamentally changes their rules and structures and hence may affect accountability arrangements. Governments all over the world are using ICTs to improve their effectiveness and efficiency. Some government also use these technologies to improve democratic processes by enabling contacts between government and citizens. The digitization of government is often regarded as an instrumental process: governments should select the best instruments to perform their tasks (Meijer & Zouridis 2006). A broader perspective on e-government – in line with institutional theory – states that e-government should be regarded as a process of institutional change.

This debate about e-government is directly related to the long debate about the effects of information and communication technologies (ICTs) on organisations (for an overview: Williams & Edge 1996; Taylor et al. 2001). Traditional perspectives include a *techno-deterministic perspective* – i.e. organisational structures and cultures change because of the use of technologies – and a *voluntaristic perspective* – i.e. organisations choose how to use technologies to fit their specific situation. These perspectives reflect the convergence and reproduction of differences perspective that I have mentioned before. More sophisticated perspectives have been developed (information ecologies (Nardi & O'Day 1999), structuration (Orlikowski 1992), social construction of technology (Bijker, Highers & Pinch 1987)) but in this paper I will focus on the two extreme positions for the sake of argument.

The reproduction of differences perspective stresses that we should study the specific institutional structures of social systems to understand how technologies are used. The idea is for example that a bureaucratic organization such as a government agency will use database technology differently than a small consultancy firm based on informal and ad-hoc procedures. At the level of countries

this means that we need to study the institutional characteristics of political systems to understand why e-government takes a different form in different countries.

The convergence perspective actually states that institutions do not matter: technological characteristics count. The idea is, to follow up on the previous example, that both government agencies and small consultancy firms will change their communication patterns in similar directions because of the introduction of electronic mail. At the level of countries, there is no need to understand institutions. A good understanding of technological characteristics is needed why e-government takes on a certain form.

The characteristics of ICTs (or affordances (Deibert 1997)) are the result of complex processes of technological, political and cultural construction. These characteristics can be regarded as institutional characteristics since the technology embodies values and norms that were put into the technology by those that developed it (Kling 1996). Transparency, connectivity and calculability are generally seen as key characteristics of ICTs (Bekkers 1998). An additional characteristic is volatility: the emphasis on short term relevance of information (Meijer 2002). Meijer (2002) has also highlighted the difference between organizational ICTs and personal ICTs. Organizational ICTs have been developed to enable cooperation within organizations whereas personal technologies have primarily been created to support individual work processes. The convergence perspective states that the characteristics transparency, connectivity, calculability and volatility and the difference between organizational and personal ICTs leads to changes in agencies and political principals. The outcomes of processes of institutional change in various countries are expected to be similar.

Research into institutional differences between countries is scarce and generally focuses on policies rather than on resulting practices. Bekkers & Korteland (2006) provide an interesting analysis of e-government initiatives in various European countries on the basis of an analysis of policy documents. They found mostly convergence and similar underlying ideas about e-government. This research goes on step further and aims to analyze the resulting practices in different countries. Do we also find convergence in these practices?

4. Research methodology

The methodology focused on making a twofold comparison of institutional contexts:

- *Bureaucratic structures in the US and the Netherlands.* Bureaucracies in the Netherlands are less politicized than American bureaucracies (Rutgers 2001). There are no political appointees: merit is leading. Another thing is that Dutch bureaucracies belong to one executive. In contrast, American bureaucracies may serve different political masters. These bureaucracies are more politicized.
- *Accountability structures in the US and the Netherlands.* These structures are formed by the political systems: a presidential system with checks and balances versus a parliamentary system with a division of powers. Presidential systems put a stronger emphasis on ex-post oversight (Strøm 2000).

The empirical research in the Netherlands focused on all government agencies that can be called to account by the National Court of Audit (which, in effect, most agencies do) and Parliament. The research in the USA focused on all government agencies in Connecticut, Massachusetts and New York that can be called to account by State Legislative Committees or State Auditors. This is a broad set of organizations. For practical reasons, the focus in the USA was translated into those agencies that fall under the jurisdiction of the State Public Records Department. This means that the domain of agencies was broad in both countries.

In the Netherlands the principals were selected that are broadly regarded as the main political principals: Parliamentary Enquiry Committees and the National Court of Audit. In Connecticut, Massachusetts and New York the principals were selected which can be assumed to be similar to the political principals in the Netherlands: Legislative Committees and the Office of the State Auditor.

Information was gathered from agencies and from principals. Information gathering through agencies focused on the relation between ICTs and organizational recordkeeping whereas information gathering through principals focused on the relation between organizational recordkeeping and fact-finding. Agencies provided information about the behavior of government agencies and principals provided information about these principals.

The group of agencies is very large in both countries and therefore I could not collect information from them directly. In the Netherlands a representative from the National Archives was interviewed. Additionally, specific interviews with 11 selected government agencies were conducted to get a richer overview of the impacts of ICTs on the way agencies store, store and preserve information. In the USA, interviews with key informers from State Recordkeeping Departments were used to obtain information about the behavior of government agencies. Key informers do not provide information about themselves but about other organizations and thus create a bias in the measurement.

Interviews with key informers were used to obtain information from principals. In Netherlands interviews were conducted with key informers at the National Court of Audit and Parliament and in the USA key informers of legislative committees and offices of the state auditor were conducted in the three states.

An overview of all interviews is provided in the table:

	Netherlands	Connecticut	Massachusetts	New York State
Recordkeeping	National Archives Selected agencies	Connecticut Public Records and State Archives	Massachusetts State Archives	New York State Archives.
Auditor	National Court of Audit	The Connecticut State Auditor of Public Accounts	Auditor of the Commonwealth of Massachusetts	New York State Audit Bureau
Legislature	Second Chamber (Dutch Parliament)	Connecticut Legislative Program Review and Investigations Committee	Massachusetts Senate Committee on Post Audit and Oversight	New York State Assembly's Oversight, Analysis and Investigation Committee

Table 1. Overview of respondents

In addition, relevant documents were analyzed to find answers to the research questions. For both recordkeeping departments and principals documents were studied that provided background information about these organizations. The document study supporting the interviews with accountees additionally focused on general documents about recordkeeping policies. As for principals, the study focused on documents concerning the orientation, staffing, procedures and functioning of Legislatures and National/State Auditor. Additionally, reports of fact-findings were analyzed. All recent reports were studied for indications of the use of digital information. Recent reports were selected through website listings or year reports.

The overall research methodology is presented in the following table:

	Level	Type of data collection	Interviews	Document study
1. Level of the agency	Government agencies	Informers reporting about agencies	Recordkeeping, open questions	General review of documents
2. Level of principal	Principals (State Auditors and Legislative	Principals reporting about themselves	Principals, statements	General review and specific analysis of recent

Table 2. Overview of the research methodology

5. Findings: agencies

5.1 Agencies in the Netherlands

The empirical research in the Netherlands indicated that agencies register more information and this information is also retrieved more easily. The results are shown in table 3.

Case	ICT	Register	Preserve	Retrieve
Central Information Agency	Database System	no change	at risk	improved
Delft Police	Database System	improved	at risk	improved
Ministry of Environmental Affairs	Workflow System	improved	no change	improved
Ministry of Finance	Database System	no change	improved	improved
Ministry of Foreign Affairs	E-mail System	no change	at risk	no change
Motor Vehicle Taxes	Telephone System	improved	at risk	improved
National Aviation Agency	E-mail System	improved	at risk	no change
Provincial Acoustic Agency	Database System	improved	no change	improved
Student Grant Agency	Database System	improved	no change	improved
Student Grant Agency	Workflow System	improved	no change	improved
Student Grant Agency	E-mail System	improved	at risk	at risk
Tax Department	Database System	improved	no change	no change
The Hague Police	Database System	improved	at risk	improved

Table 3. Changes in organizational recordkeeping systems

The table shows that most organizations register more information than before the introduction of the ICTs because more process information is captured. Database systems register information about the processing and use of data, e-mail systems register information about the process of sending and receiving messages, other systems register information about various forms of use. One example can illustrate the increase in registering information.

The Central Agency for Motor Vehicle Taxes implemented an automated telephone system to support its call centre. This system directed incoming phone calls to available employees and also generated an enormous amount of data about phone calls and about the work of employees. The management staff of the agency used this data to plan the work of the other employees. The data was also used to introduce targets for employees. Employees had one and a half minutes on average to answer a phone call. If employees took longer to answer phone calls, management could approach them and propose measures to improve their work rate. Before the introduction of this system, precise data about the average waiting time and the number of calls that were answered were not available. With the new system, the Central Agency for Motor Vehicle Taxes registered much more data about the answering of its telephones.

The research indicated that the introduction of ICTs might threaten the authenticity of data. How can political principals trust digital data when there are no technological procedures to preserve the authenticity of this data? Most organizations had not developed sound technological systems for ensuring the authenticity of digital data, hence the label 'at risk' in table 3. Theoretically, it is easy to manipulate digital data and therefore one can argue that the data about police suspects are not reliable. The absence of technological safeguards, however, does not necessarily lead to the conclusion that data are not reliable. Other types of safeguards, such as organizational (e.g. separation of responsibilities) and institutional (e.g. formal oath), can protect the authenticity of digital data. The case studies also indicated that the use of ICTs can decrease the durability of

data. Digital data may not be preserved as long as paper data and, therefore, may not be available for fact-finding by political principals. However, problems only arise when these political principals require old data for the reconstruction of facts which, in effect, they seldom do.

The research also showed an improvement in retrieving digital data (see table 3). The transparency of government organizations increases when ICTs are used because data may be viewed from different perspectives. Thus, ICTs improve the analysis of information and decision making. An example can illustrate this. The Dutch Ministry of Finance has established a database system with tools for the analysis of data about the incomes of citizens whereas before the same data were kept in paper files. In this case there are not many differences in the data that were registered in paper and in digital systems. The use of the database system, however, makes it much easier to retrieve the data in various ways. These capacities can be used by the Ministry of Finance but also by political principals.

5.2 Agencies in the USA

The impact of the digitization of government on organizational recordkeeping was also investigated in the USA. The differences between the states were limited: all respondents highlighted similar trends. The interviews with employees in recordkeeping departments led to the following findings:

- *E-mail*. The effects of the use of e-mail on organizational recordkeeping are ambiguous. The respondents all highlighted that much information is recorded and these messages may be preserved on computer tapes, paper documents or in individual files. The respondents from the Records Department in Connecticut: 'Some organizations just maintain them on tapes. The Department of Information keeps the messages on back-up tapes.' However, this information may be mostly irrelevant and there are no guarantees for adequate preservation. The respondents from the Records Department in New York sketch how the preservation of e-mail takes place: 'Some agencies purge the e-mail boxes every 90 days. They're saying: e-mail messages are not records.' This means that principals cannot rely on the availability of this information: they may be 'lucky' to find an e-mail.
- *Databases*. The effects of databases on organizational recordkeeping are also ambiguous: they improve the short-term memory of organizations but may create difficulties in the long term. The dynamic nature of databases creates, according to the respondents, problems specifically for GIS. On the short term databases greatly facilitate fact-finding since principals can easily select information, compare information, make calculations on the basis of raw data and analyze information. The respondents from the Records Department in Connecticut: 'There is a lack of knowledge in the agencies that databases need to be treated as records. They manage them for their own needs. They are not aware of the interests of accountability and historical research.'
- *Office software*. The effects of office software on organizational recordkeeping seem generally positive because paper documents are also preserved. The digital document is a back-up and more easily accessible. On the other hand, if the information is only preserved digitally there are no adequate guarantees for the reliability of the digital information. This makes the effect of office software on organizational recordkeeping ambiguous. The respondents from the Records Department in New York: 'At the State Archives we preserve them digitally on a LAN. Documents are also distributed electronically. It is still possible to change and delete documents. The real necessary safeguards aren't there.'
- *Websites*. The effects of websites on databases runs parallel to the effects of e-mail and databases and are thus also ambiguous. Advantages are that much information is recorded and made available and this information is easy to access. This information, however, is often updated and may not be preserved. The respondents from the Records Department in Connecticut: 'Reports are sometimes published on the Internet and not preserved. Constant changes to reports make preservation difficult.'

The general opinion of the respondents was that more information is recorded. They specifically referred to e-mail. However, the respondents expressed a negative opinion about the effects of digitization on preserving information. They argued that digital information is not more durable

neither more reliable. Opinions about access to information differed: some respondents highlighted the direct access to information, others emphasized the problems in ensuring long-term access to digital information.

5.3 Analyzing differences and similarities

The main findings in both countries were similar and can be summarized in the following conclusions:

- Government agencies record more data than before the introduction of ICTs.
- Government agencies grant better access to recently recorded data.
- Government agencies have not created technological warranties for protecting the authenticity of this information.
- Government agencies can not guarantee that the digital information will remain accessible over time.

The general conclusion of the research at the level of agencies is that institutional differences between the USA and the Netherlands do not seem to have an influence on the relation between digitization and organizational recordkeeping. Technological characteristics such as transparency and volatility determine the outcomes in both countries.

One minor difference between the findings in the Netherlands and the findings in the USA is the increased importance of websites. Websites were found to be more important for communication between government agencies and citizens and even within government agencies in the USA than in the Netherlands.

The research in the Netherlands pointed at a difference between organizational technologies (databases, websites) and personal technologies (e-mail, office software). Organizational technologies may not be managed well for the long term but they do have a positive effect on short term memory. Personal technologies are not managed well and may also have a negative effect on short term memory. The same difference was identified in the USA. This finding strengthens the conclusion that technological characteristics are more important than institutional differences.

One may argue that all the organizations studied are bureaucratic government organizations and, thus, their institutional differences are limited. It must be noted, however, that acknowledged differences such as the increased level of politicization in the top of American agencies and the stronger focus on professional civil servants in Dutch agencies do not influence the impact of digitization on organizational recordkeeping.

Digitization influences organizational recordkeeping in similar ways in the Netherlands, Connecticut, Massachusetts and New York. This seems to indicate that these technologies have characteristics that determine their use and support the convergence perspective. The main technological characteristics are individual autonomy (e-mail and office documents) and focus on timely information (databases and websites). These characteristics create problems for the public and long-term availability of information. In both countries, agencies emphasize short-term gains at the expense of long-term access to information.

6. Findings: principals

6.1 Principals in the Netherlands

Generally, parliamentary fact-finding in the Netherlands is facilitated by the increased transparency of government organizations. The availability of e-mail messages, records in databases, telephone records, et cetera and the opportunities to retrieve these data from complex information systems helps political principals to find the data they need. An example concerns an investigation by the

National Court of Audit into the protection of information. The auditors could get full information about the rights and access of all employees because these data were preserved in a database system.

The image of the 'transparent state', however, needs to be placed in perspective. In political investigations, there still is very little use made of digital data. Most investigators still rely heavily upon paper data. Investigators generally ask agencies to send them all relevant data in the form of paper documents. The basis of these documents may lie in digitized systems but most political principals consider that to be irrelevant. It does not seem likely that this situation will change radically within a few years because there still is much uncertainty about the status of digital data. Paper data are considered to be a firmer basis for an investigation by parliamentary committees. Auditors from the National Court of Audit were more likely to use digital information in their investigations.

The transparency of government organizations does not increase in an unequivocal manner for all ICTs. The use of database management systems, workflow management systems and telephone systems generally leads to better memory systems. However, when e-mail systems are used, preserving and retrieving the data may be a problem. In two parliamentary investigations (Committee Airplane Crash Bijlmermeer and Committee Peace Operations) investigators could not use information from e-mail systems since many messages were not (reliably) stored in the e-mail system.

In additional to a closed system for confidential communication, the Dutch Ministry of External Affairs had an open e-mail communication system which was used to communicate within the organization. This e-mail system was not only used for private communications but also for steering and control and therefore the ministry had developed guidelines for the preservation of messages. Messages had to be printed out and preserved in the paper records. In effect, however, no messages were preserved in the records and the parliamentary committee could not use these messages to reconstruct decision-making concerning peace operations.

Information in databases was largely available but hardly used for fact-finding. The most important explanation for the lack of use of the available digital information is the limited capacity to use this information. Parliamentary committees have a small support staff and they have to process a huge amount of information. They generally concentrate on the main documents and fail to use the available digital information. The National Court of Audit has more capacity but still use of digital information in investigations of government effectiveness is limited.

6.2 Principal the USA

The impact of changes in organizational recordkeeping on fact-finding by political principals was also investigated in the USA. The research showed that there is much agreement among the respondents concerning the impact of electronic recordkeeping on fact-finding. The respondents indicate that they make extensive use of digital information. The respondent from the Massachusetts Auditor's Office: 'In the past ten years we have made an effort to collect the information electronically. 80 – 90 % of everything we collect is electronic.' They stress that they do have sufficient capacity to process digital information and this enables them to make reconstructions of facts which they could not have made without the availability of digital information. Information from databases plays an important role in audits and reviews. Supporting software such as ACL (Audit Command Language) is used to analyze data.

The research also showed interesting differences between the respondents (and not between the states) concerning the role of e-mail in fact-finding. There are fundamental differences on this issue. What is the status of e-mail? Opinions differ considerably. Some respondents see e-mail as reliable record of organizational communication and thus useful in investigations. The respondent from New York's Legislative Committee: 'E-mail messages have played an important role in reviews. In a procurement record an agency must record all the steps taken when contracting a vendor. These records contain e-mail messages between agencies and vendors and between

agencies and the comptroller's office. We wanted to check whether agencies had made the right decisions and had a look at these e-mail messages.' Others argue that e-mail messages can easily be tampered with and are therefore not to be trusted. The respondent from Massachusetts' Legislative Committee: 'I have agencies sent e-mails to me supporting their arguments. They generally forward only positive information. I have never seen an e-mail that indicates that the agency has made mistakes. Request for paper documents are always very clear. Send us all X reports in a time period. They then have to send all these reports, whether they are favorable to them or not. If we make a request for all communications they may not go through all their e-mails. And we have not made specific request for e-mail. Agencies may selectively send e-mails but do send every required report.' A social construction of e-mail is taking place but without 'closure' there is much confusion. This confusion also existed among recordkeepers.

The analysis also showed an interesting similarity among all respondents. All respondents indicated that they get direct access to organizational data either through large state-wide accounting systems or through agency websites. In either case the principals can access the information directly and can thus 'penetrate' in the organization without having to pass a 'gatekeeper'. The respondent from the Auditor's Office in Connecticut: 'We have almost unlimited access to the transactional information. We can pull a lot of the data we need out off this database. We get 95% of the digital records we need for the audits from this database.'

The analysis showed important differences between auditors and legislative committees. Auditors in all three states have direct access to accounting information of all government agencies through state-wide accountability systems. Legislative committees do not make use of those systems for data collection. All the auditors have sophisticated tools for analysis of data. Legislative committees generally use simple office software. The combination of these changes makes it possible for auditors to shorten their cycle of control. They may even be moving to forms of 'real-time auditing': digitization shortens cycles of control and may eventually result in instant accountability.

6.3 Analyzing differences and similarities

The research findings in the two countries show interesting similarities and differences. Let us first discuss the similarities:

- The availability of digital information enables principals to make reconstructions which could not have been made without it.
- Auditors make better use of the available digital information than representatives.

The first similarity reflects the trends in organizational recordkeeping. More information is available and is sometimes used for political fact-finding. The second similarity reflects an institutional similarity. Auditors have more information-processing capacity and will therefore be capable of making better use of the available digital information.

Important differences between the two countries were also found. These can be summarized in the following conclusions:

- Principals in the Netherlands make little use of digital information and mostly rely on information in paper documents. Principals in the USA extensively use digital information for fact-finding.
- Principals in the Netherlands have insufficient information processing capacity to adequately process all the digital information available to them. Principals in the USA generally have sufficient capacity.
- Principals in the Netherlands make limited use of databases for fact-finding. Principals in the USA, in contrast, make much use of this digital information.

The unmediated access to information was an important finding of the research in the USA. The central government databases in Massachusetts, New York and Connecticut enhance the transparency of agencies and also limit the control they have over their own information. These

databases enable the principals to penetrate more deeply into the state agencies. These databases have existed for quite some time in the USA, in New York since the 1980s. Unmediated access was not found in the Netherlands. Auditors have to approach agencies to get access to information. This type of arrangement does not exist in the Netherlands.

On one issue there were differences between respondents in the USA. Some agreed with the respondents in the Netherlands and argued that e-mail is not useful for political fact-finding. Others argued the opposite and indicated that e-mail is most useful for fact-finding. This finding shows that e-mail is probably still the most debated technology.

This analysis shows that most findings of the Dutch research were not confirmed in the USA. American principals make more extensive use of digital information for fact-finding and do not have insufficient capacity to process this information. Institutional characteristics seem to be more important than technological characteristics. Differences in focus of principals may explain differences in use of digital information. Principals in the Netherlands may rely more on internal evaluations whereas principals in the USA want access to source records. This finding seems to reflect institutional differences: the greater emphasis in presidential systems results in the demand for unmediated access to information.

Digitization influences Dutch and accountability arrangements in different ways. Institutional structure conditions the relation between digitization and political accountability. At this level there is support for the reproduction of differences hypothesis: the use of ICTs leads to different patterns depending on institutional differences. Hence, these institutional differences are impounded

7. Conclusions

Is the way in which agencies prepare for accountability in the Netherlands and the USA converging in the information age or are preexisting differences being reproduced? On the basis of this research I conclude that there are no substantial differences at the level of agencies. The differences in level of politicization and number of political masters have no influence on the use of technologies. The use of ICTs takes on similar forms and leads to similar effects on agency practices in the Netherlands and the USA. The impact of digitization on organizational recordkeeping practices was very similar in the three American states and the Netherlands. The impact can be explained by key characteristics of information and communication technologies such as transparency, connectivity, calculability and volatility. The influence of these characteristics on resulting practices provides support for the convergence thesis.

Does this finding also hold true for the level of political principals? Is the way in which principals hold agencies to account in the Netherlands and the USA converging in the information age or are preexisting differences being reproduced? The research showed interesting differences at the level of accountability arrangements. American principals made more extensive use of digital information than their Dutch counterparts and did not lack the capacity to process this information. Different outcomes can be explained on the basis of institutional differences and reflect the greater emphasis on ex-post oversight in presidential systems. This provides support for the reproduction of differences thesis.

How can we understand that institutions do make a difference at the macro level of political principals but do not matter at the meso level of organizations? An explanation could focus on the degree of stability of institutions. Stable institutions will incorporate technologies according to their rules whereas less stable institutions will be prone to external influences and hence may change under the influence of the use of technologies. Institutions at the level of organizations seem less stable than those at the level of political systems. Employees generally function within various organizations and also contact many people within different organizations. In contrast, political systems are more isolated and most people function within a political system rarely contact anyone within another type of system. Organization will adapt to new technologies whereas political systems will adapt these technologies. Another explanation for the difference in stability is the match between political institutions and national cultural traditions. The structure of the political system is seen as a key aspect of American and Dutch societies. This does not seem to apply to

the institutional structure of government agencies which derive their structure mostly from demands for effectiveness and efficiency. This implies that agency structures can more easily be affected by the introduction of ICTs than the more stable institutions at the level of political systems.

An alternative explanation states that the differences between agencies were not as great as those between political principals. All agencies are bureaucratic organizations that are based on the principles developed in organization theory. The fact that standard books on organization theory pay little attention to international differences – with the exception of Hofstede's (2001) work on national cultures – supports this claim. This is in clear contrast with political theory where national differences form the starting point for analysis. This alternative explanation, however, seems to stress that the process of convergence has a longer history and should not be limited to recent changes triggered by the use of information and communication technologies. Other technologies such as the type writer, filing systems, carbon paper, et cetera have influenced the functioning of these organizations before. The new technologies are only another step in a long process of technology use and convergence.

Technological characteristics are not the only possible explanation for convergence at the level of agencies. This convergence could also be regarded as a result of 'institutional isomorphism' (Powell & DiMaggio 1983) which stresses that organizations will imitate each other to remain acknowledged as legitimate actors. Bekkers & Korteland (2006) find that organizations in different European countries adapt information and communication technologies in similar ways to survive as legitimate organizations. This explanation, however, does not stipulate in what direction organizations are changing. Neither does it account for practices which seem to undermine organizational legitimacy such as the increased volatility of information. Therefore, institutional isomorphism can only form an addition to the explanation on the basis of technological characteristics.

This paper has provided an explorative discussion of the role of institutional structure in conditioning the effects of digitization on political systems. This venue is promising: comparing the impacts of ICTs in different countries provides valuable insights in the relations between digitization and political systems. This paper has resulted in an interesting difference between organizational convergence and political system stability when it comes to accountability arrangements. Institutions do matter, but so does technology!

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