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E-government: A Comparative Study of the Multiple Dimensions of Required Regulatory Change *

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1. Introduction

To date, governments across the world have widely recognised the potential of new information and communication technologies (ICTs) to bring about fundamental renewal in not only government and public sector processes, but also in their relationship with civil societal groups, the private sector, citizens, and various other actors. In the governmental relationship with citizens, civil society and businesses (for instance: democratic processes, public service delivery, or policy implementation), inter-organisational arrangements (for instance: policy co-ordination, policy implementation, or public service delivery), and in intra-organisational activities (for instance: policy development, operational activities, or knowledge management), ICT offers a wide range of opportunities to increase efficiency, effectiveness, transparency and participation in all kinds of policy sectors. Clearly, ICT will affect government services, the terms and conditions under which political actors and civil servants operate, and more in general the manner in which public bodies function. Illustrative is the development mentioned by Trudel in his Canadian country report, that ICT breaks down and increasingly makes obsolete traditional compartmentalized operations, whether they belong to government itself or to civil society.

This general report brings together and discusses the various e-government developments analysed in the country reports prepared for the E-Government session of the XVIIth World

* Session VI. National Reports received from: Canada, P. Trudel; Denmark, P. Blume & H. C. Spies; France, Ch. Chatillon; Germany, Th. Fetzer; The Netherlands, S. van der Hof; Spain, F. Galindo; Switzerland, J. M. Verniory; UK, B. Schafer; US, J. C. Reitz. All reports were written on the basis of a questionnaire.

Congress of Comparative Law. More specifically it touches upon the interaction between e-government and the applicable regulatory regimes. Although the different reports vary to a certain extent as regards their focus and matters discussed, they offer numerous highly interesting opportunities for comparative analysis. The result of this is presented in this general report.

A first thing that comes to mind when considering the central theme of this report is what exactly defines e-government. And how should we appreciate its relation with related concepts, such as e-governance? A glance at the country reports shows that this question is easier asked than answered. First, the contours of the concept are rather uncertain. Many different technologies might be considered under the *e* in *e*-government. In the earliest phase of development, the electronic dimension merely related to the Internet and computer systems used in the administrative back-office. More recently, other technological applications (such as Global Positioning Systems providing location-based services, Radio Frequency Identification, smartcards and biometrics)¹ are expected to offer numerous – even better – opportunities for e-government. Moreover, a wide range of highly different types of public services may constitute the broad domain of ‘government’. Services may range from the rather obvious and basic types such as social security and other citizen services, to services in the health care sector,² the judicial system³ and law enforcement. As a result, e-government is the umbrella term for such initiatives as e-publication, online filing (including e-procurement and e-filing with courts),⁴ e-voting, policy trafficking, electronic surveillance and personalised services. In the broadest sense, fulfilling the government’s function to protect its people from terrorism and other kinds of crime could also be brought under the e-government concept.

Second, some country reports mention that the concept of e-government is often reduced to perspectives on newly available opportunities to realise smooth, effective and efficient service delivery, without reference to the many other dimensions (and: challenges) it may include. What is more: in those situations that e-government is regarded as a broader concept – i.e. to include e-democracy – the opportunities for a revitalisation of democracy are often reduced to e-voting. It is however arguable that several – often neglected – dimensions might play a crucial role in realising other opportunities, such as strengthening the overall legitimacy

¹ See for details on these technologies and their possible application in e-government: A. M. B. Lips, *et al.*, *Issues of Online Personalisation in Commercial and Public Service Delivery*, (2005).

² Compare e.g. the Swiss and Danish country reports. The 1994 Danish report *Info-samfundet år 2000* explicitly includes service improvement in the health care sector as a key ambition. The report is available at http://www.videnskabsministeriet.dk/cgi-bin/doc-show.cgi?doc_id=1858. The Swiss report lists and discusses projects in Geneva and Ticino.

³ Compare e.g. the Swiss country report, mentioning the Juslink project, whose aim is “to allow a complete online interaction between tribunals and justice ‘users’ in general – and lawyers in particular. The project will thus realise electronic applications to file actions or appeals, to officially communicate with the court and (from the tribunal’s side) to notify judgments and other decisions via Internet.”

⁴ The US report, for example, refers in detail to the fact that courts have enthusiastically embraced e-filing and discusses the controversy over online access to court documents.

of government by means of e-participation, e-consultation and e-petitioning. Reitz, in his US report, for example, considers the opportunities that ICT offers to ensure a real dialogue between agency policy makers and the public as one of the most interesting promises of e-government.

This report takes the broad perspective of e-government as its central theme, thereby not defining the concept but acknowledging that it concerns everything related to the introduction and use of ICT in public sector processes, structures, traditions and interests. As such, this report deals with a wide range of issues, most importantly those related to developments in the area of e-governance and e-democracy. In discussing and comparing the most prominent developments and issues reflected upon in the various country reports, this general report aims to support further understanding of and knowledge on the dynamics of electronic government and hence, the present and future challenges of this endeavour. In doing so, this report first (section 2) discusses several more general issues and subsequently (section 3) focuses on a cross-national comparison of the legal implications and challenges related to the design and implementation of e-government.

2. E-government: Ambitions and Dimensions

The first thing that becomes clear when reading the various country reports is that one cannot understand the opportunities and difficulties in launching and realising an effective and coherent e-government ambition without understanding the specifics of the national context. Different economic, social and political circumstances may have a determining effect on the implementation of e-government ambitions. Illustrative is the Swiss situation. This country is one of the smallest federal states in the world, with a very intricate federal structure that implies 26 federated entities (the cantons), and three levels of government. This political structure implies, as Jean-Marc Verniory notes in his country report, that as regards e-government “there can be up to 2800 different e-government strategies and programmes in Switzerland!” Hence, for one country it will be easier to realise certain e-government initiatives than for others. Thus, the different rankings, benchmarking reports⁵ and international comparative surveys can be misleading in the sense that they sometimes do not take the influence, impact and conditioning effect of specific national governmental structure into account.

⁵ One such example is eEurope’s 2005 e-government benchmarking report. See http://europa.eu.int/information_society/eeurope/2005/all_about/egovernment/index_en.htm.

2.1 Ambitions in Setting the E-Governance Agenda

Is e-government a means to an end, or an end in itself? Before considering the various country reports in looking for an answer, it is interesting to cite here a remark made by Viviane Reding, Information Society and Media Commissioner of the EU, when presenting – on 25 April 2006 – the European Commission’s e-Government Action Plan. This plan, announced in the so-called “i2010 initiative”, sets the agenda for the EU e-government ambition from 2006 to 2010.⁶ Reding said: “E-Government is no longer just a political toy, it is the essential tool of government, for modernising Europe’s public administrations.”⁷

In reading the various country reports, we note that e-government is indeed not a toy, but a vehicle in realizing larger policy goals. Illustrative is, for example, the situation in the UK as described by Burkhard Schafer in his report. In his country, where e-government has been high on the policy agenda ever since the labour government was elected into power, the use of ICT in the public sector is clearly seen as a way in which two key policy goals (better governance, and a better quality of regulation, and more open governance) can be achieved in a cost-efficient way. Illustrative for the UK situation is also the 1998 comprehensive policy statement on e-government, entitled *Electronic Government: Information Technologies and the Citizen*⁸, that sees an important role for ICT in improving the internal workings of public sector organisation and the delivery of public services, making government more transparent and reinvigorating democracy at all levels.

Other countries show a similar picture. Improving public services and fostering accountability and transparency in relations among individuals and government are the key ambitions on the e-government agenda of Canada. And Thomas Fetzer, in his German country report, refers to advantages such as the reduction of bureaucratic obstacles and efficiency gains as well as the increased transparency of administrative activity.⁹ He mentions that the coalition agreement of the newly formed CDU/CSU and SPD coalition regards e-government as the groundwork for a comprehensive administrative reform bearing the title “Staat Modern” (“The Modern State”).¹⁰ Its main purpose is to create more modern and efficient administrative structures combined with cutbacks in bureaucracy. In Spain, the e-government policy agenda lists similar goals and ambitions: improving public services, reducing bureaucracy, simplifying procedures and bringing the government closer to its citizens. In

⁶ *i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All*, Brussels, 25.04.2006 COM(2006) 173 final. Available at http://europa.eu.int/information_society/activities/egovernment_research/index_en.htm.

⁷ See the press release, available at <http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/06/523&format=HTML&aged=0&language=EN&guiLanguage=en>.

⁸ <http://www.parliament.uk/post/egov.htm>.

⁹ Making reference to Büllsbach, *eGovernment – Sackgasse oder Erfolgsstory*, DVBl. 2005, 605, 606; Heckmann, *E-Government im Verwaltungsalldag*, K&R 2003, 425.

¹⁰ <http://www.staat-modern.de/>.

Switzerland, the e-government strategy at the federal level (released in February 2002)¹¹ lists three main strategic focuses: the development of e-government bases (i.e. creating a legal, administrative, technical and organisational framework), establishing service optimisation (i.e. improving collaboration between the State and private sector organisations, and implementing e-transactions), and creating networking development (i.e., basically developing the offer of e-transactions). At the level of the cantons, Neuchâtel describes in the *Loi sur le guichet sécurisé unique* (which regulates all e-government transactions) e-government and e-services as those allowing an easier and more transparent access to the services offered by the state. George Chatillon shows in his report on the French situation that one of the ambitions of creating an e-administration – in addition to the modernisation of the public administration – is to force administrative services to take the user (consumer) into account. The user is no longer regarded as an anonymous recipient of public services, but rather as an individual with specific needs from the government.

In looking at the situation a little further south in Europe – in Spain – we note that the key mission of current e-government strategy (laid down in the Public Administration Technological Modernisation Plan 2004-2007 – Plan Conecta – presented in September 2004) is to help modernise public administration, to facilitate inter-administrative coordination and cooperation as well as to realise multi-channel service delivery to all citizens. The strategy has a clear link with the more general policy ambition to improve public services. As such, it is a key element of – and should help implement – the so-called Decalogue for good administration, presented by the Ministry of Public Administrations in November 2004.¹² The Decalogue comprises the set of rules that should guide public administrations in their everyday tasks. Finally, the Danish report offers a similar perspective. Key ambitions in the various policy documents here are: realising a more coherent service with the citizens and companies, an increase in service quality, gains of rationalization, more open decision processes, and the establishment of highly qualified centres and knowledge data bases that facilitate access to knowledge and advice at a highly qualified level across the public sector.

When considering the way in which the ambitions are to be realised, different lines can be used. A first method is policy driven, relying on political targets, technical standards and institutional incentives. Another method is to use formal legislation and legally enforceable rights (for citizens) and duties (for departments) in steering the way in which e-government is implemented and used. A glance at the different country reports shows that both lines are used. In the UK, as described by national reporter Schafer, e-government initiatives are in general policy driven, with a clear primacy of the political over the legal. Rather than using formal legislation, policy documents with targets are published, and positions are

¹¹ Available at: <http://www.admin.ch/ch/f/egov/egovstrategiebund/index.html>.

¹² http://www.map.es/gabinete_de_prensa/notas_de_prensa/2004/20041116_0003-ides-idweb.html.

created which have responsibility for these targets. Here, the 'best' departments are publicly praised, while the 'weakest' are exposed and encouraged to follow in the future the lead of 'beacon departments'. A similar position is taken in the US. Here, Congress passed the 2002 e-Government Act to symbolise the federal government's commitment to e-government.¹³ The Act seeks to influence the way things develop by establishing monetary and political incentives to development e-government initiatives, including the requirement for agencies to report to the Office of Management and the Budget (OMB) on an annual basis.

In Germany, the success of e-government initiatives is expressly linked to legislative arrangements for legal certainty: administrative procedure statutes and some other specific statutes were amended to allow for electronic interaction. Illustrative for the role which is given to law in stimulating e-government progress is the Danish example. Here, an authorisation rule was included in the Public Administration Act, whose sole purpose was to promote electronic communication between citizens/companies, on the one hand, and public authorities, on the other. The rule provides a minister with the possibility to administratively remove a prescribed form in the legislation if this impedes electronic communication and as such prevents citizens/companies from addressing the public administration electronically.¹⁴ In addition to this, a 2002 project was launched to modernise relevant legislation. The project required all ministries to evaluate the legislation in their jurisdiction in order to locate provisions that hinder electronic communication.¹⁵ The Swiss report finally also provides evidence of a close link between the successful development of e-government and necessary legislative reform. It is noted that a clear obstacle to the development of concrete projects lies in the absence of proper legal provisions regarding e-government, but above all in the existence of other provisions which are incompatible therewith.

2.2 Dimensions

As mentioned in the introduction, the concept of e-government acts as an umbrella for different concepts, most prominently those of e-governance and e-democracy.¹⁶ What do the country reports tell us about the initiatives in both domains and can differences be noted?

¹³ Pub. L. 107-347, Dec. 17, 2002, 116 Stat. 2899 (2002) (codified in various parts of 44 U.S.C. (Supp. II 2002)).

¹⁴ Act 215/2002.

¹⁵ To stimulate e-government processes, a Digital Taskforce was established in 2001. See <http://www.e.gov.dk>.

¹⁶ The Canadian country report adds a third component to the well-known concepts of e-governance and e-democracy: civil society. Reference is made to the Québec document entitled *Ministère des services gouvernementaux*, indicating that the information society targets the development and improvement of social relations with all stakeholders in civil society: pressure groups, non-profit organizations, etc. <http://www.services.gouv.qc.ca/fr/enligne/index.asp>.

Also, e-government is often understood as a phenomenon with characteristics similar to e-commerce. But are the benefits which e-government offers merely phrased in the terminology of a market in services?

2.2.1 E-governance versus E-democracy

That e-democracy and e-governance are two separate concepts is clearly visible when looking at how both have developed in the past decade in the different countries. In the UK, the first policy statements emphasised the challenging possibilities that ICT could offer for both e-government and e-democracy. In the more recent policy documents and initiatives, e-democracy hardly features at all. The majority of the present-day e-government projects tend to focus on e-transactions and state-citizen communication. This resembles the situation in Germany and The Netherlands. In the latter country, the '1998 Electronic Government Action Programme' primarily focuses on e-governance-related ambitions, whereas e-democracy plays a role of minor importance. The ambitions of this programme as well as the various subsequent policy documents are all formulated in terms of a more efficient, effective and transparent government. Although themes such as improving accessibility and citizen participation feature in the plans presented after 2000, the prime focus remains on e-governance. In the German context, e-democracy is mainly limited to providing electronic access to democracy-related information, such as parliamentary protocols, in order to facilitate an increased citizen participation in democratic processes. True interactive initiatives, such as e-voting, hardly feature at all in Germany. What is more, at the political level the recently created coalition agreement between the CDU/CSU and the SPD completely neglects the e-democracy dimension when defining e-government as "the implementation of central and significant IT-supported processes within the prevalent *state services* for both business and the individual."¹⁷ In Denmark, e-democracy appears to be still in its infancy: e-voting and other e-participation initiatives to stimulate the democratic process have, as yet, only resulted in tentative attempts and public online debates are low in number.¹⁸ An e-voting specific problem mentioned in the Danish report relates to the identification of the voters. "It has hitherto been a principle in Danish electoral legislation that a citizen's voting must take place under surveillance in the sense that an electoral authority must be present to validate the identity of the citizen prior to his access to vote as well as ensuring the secrecy of the citizen's vote." It is this requirement that raises problems in an Internet environment. In reaction to an official report where e-voting was considered, the Ministry for the Interior and Health

¹⁷ Coalition agreement between the CDU, CSU and SPD November 11th, 2005, <http://www.bundesregierung.de/Anlage921232/Der+gesamte+Koalitionsvertrag+im+Worlaut+.pdf>.

¹⁸ For an overview, see the portal "DanmarksDebatten" (www.danmark.dk) that provides joint surveys of public online debates in Denmark.

concluded that it is inexpedient to introduce unmonitored voting via the Internet.¹⁹ The prime focus of the EU policy on e-government is also on the ‘business dimension’ and not so much on the benefits e-government may have for enhancing democracy.²⁰

Clear exceptions to the above line of development are the US and Switzerland. In the US, the so-called ‘informal or notice and comment rulemaking’ played a crucial role in the relative success of e-democracy development. As explained by Reitz, the ‘informal or notice and comment rulemaking’ is the procedure in US administrative law that requires government agencies to give notice of a proposed rule. Agencies must publish a text of the proposed rule, together with lengthy preambles discussing the information, data, and analyses upon which the agency has relied in developing the rule. The public may subsequently comment on the proposed rule. Thus, the rulemaking principle promotes dialogue between government officials and the public in order to make sure that the government really listens to the public before exercising authority to promulgate rules of general applicability. Case law shows that the courts have required the agencies to respond to all reasonable issues raised in the

¹⁹ This conclusion was drawn as part of the preparatory remarks to a bill proposed on 23 February 2005. See the general remarks to L 60, point 3.2.2. The bill was passed as Act 294/2005. However, the Danish report notes that the Ministry is also of the view that the final analysis of the drawbacks and advantages of electronic voting at the ballot station cannot be determined before trials have been carried out in this field. The Ministry will thus be positively inclined towards a specific, suitable trial proposal.

²⁰ The aforementioned 2006 Action Plan Central theme primarily addresses ambitions that help to realize “the creation of effective and innovative public administrations”. E-government is seen as “the key to unlocking potential in the public sector” and is essential to a globally competitive Europe. Given this, the Commission lists five priority areas. Four out of these five address efficiency-related ambitions: In citing the Commission, the five ambitions are:

No citizen left behind: eGovernment will only really make a difference if everyone can use it. The Commission will work with Member States to make sure that by 2010 all citizens, regardless of gender, age, nationality, income, or disability will have access to a wide range of technologies such as Digital TV, PCs and mobile phones.

Raising efficiency: Public services concern everybody – all 470 million citizens in the EU, 20 million firms and tens of thousands of administrations. Governments account for 45% of EU GDP, which has to be paid from taxes. Transformation of the UK pension programme has freed up 50% of clerical staff to provide face to face support to customers, or to carry out other tasks. All Member States have undertaken to use ICTs to achieve “considerable gains in efficiency” and “significant reductions in administrative burdens” by 2010. Under the Action Plan, the Commission and the Member States will put in place a framework for benchmarking the impact of e-government in order get this process on track.

Implementing e-Procurement: Government procurement represents 15% of GDP or about €1,500 billion a year. The Member States have committed to achieving 100% availability and at least 50% take-up of procurement online by 2010, with an estimated annual saving of €40 billion. The action plan will lay out a road-map for achieving these goals as well as the practical steps required for such large-scale cross-border procurement pilots and full electronic handling of company documents (the “Electronic Company Dossier”).

Safe access to services EU-wide: When citizens travel or when they move they want easy access to services. EU governments have agreed to facilitate this process by establishing secure systems for mutual recognition of national electronic identities for public administration web-sites and services. The Action Plan foresees a full implementation by 2010. The Commission will help make this happen by supporting wide-scale cross-border demonstrators, identifying common specifications for electronic ID management during 2007 and by reviewing the rules of electronic signatures in 2009.

Strengthening participation and democratic decision-making: 65% of respondents to the Commission’s public consultation on eGovernment said that eDemocracy can help reduce Europe’s democratic deficit. The Action Plan proposes to support experiments in the use of ICT for more effective public participation in policy making.

comments. It comes as no surprise that ICT, and in particular the Internet, have changed the nature of notice and comment rulemaking by making it much more accessible to a broader public. As Reitz observes in his report: most federal agencies have initiated some aspects of e-rulemaking and “there is now a web portal which provides a consolidated, searchable entry point for filing comments in any federal rulemaking proceeding and it is linked to the general ‘firstgov’ portal.”²¹

Although e-participation was not a popular policy theme in Switzerland in the early policy documents,²² e-voting is certainly one of the e-government areas where interesting projects have been launched. The Swiss country report even mentions that, when it comes to e-voting, Switzerland is extremely advanced by international standards. The Swiss e-voting project is the fruit of collaboration between the Confederation and three cantons: Geneva, Neuchâtel and Zurich.²³ The project was launched after a 2000 report was positive about the feasibility of e-voting and the three above-mentioned cantons were then chosen to conduct pilot projects under the supervision of the federal chancellery (and, ultimately, of the federal Council).²⁴ The current tests deal with remote e-voting, whereby citizens can vote from any computer matching the level of security required, anywhere in the world. For the time being, elections are not subject to e-voting tests, but this is planned as the second stage of the pilot project.

Other exceptions to the observation that e-democracy has had limited success so far, may be seen in Scotland (the Scottish e-petition system) and Canada. The Canadian initiatives of electronic consultation allow citizens to participate in a state’s political and administrative debates (by using the Internet to ask groups of individuals for their opinions on one or more topics). Finally, there are examples of successful e-democracy initiatives at the level of local councils in the UK. As described by Schafer, these initiatives emphasise e-participation and citizen-state information, aiming to bring e-governance closer to e-democracy.

The various country reports do not offer much detail on a possible explanation of the limited attention to e-democracy. In trying to find reasons that may explain the situation, the Canadian report makes reference to the fact that in contrast to most initiatives related to e-information and e-services, e-democracy raises major fundamental questions. E-voting, for example, raises issues with respect to electoral law and voters’ exercise of political rights. It refers to such questions as: which features of the ceremony specific to the voting ritual can be made virtual, and how?

²¹ See <http://www.regulations.gov>.

²² In his report, Verniory writes that “One can also note an *a posteriori* interesting statement, according to which e-government participation aspects, such as e-voting, were not a priority in Switzerland, since the country had a long tradition of popular participation in public affairs.”

²³ The federal website dedicated to e-voting is <http://www.admin.ch/ch/f/egov/ve/index.html>.

²⁴ See FF (Federal sheet) 2002 612, <http://www.admin.ch/ch/f/ff/2002/612.pdf>.

2.2.2. E-governance versus E-commerce

A look at the various country reports shows that in many countries e-government is understood as a form of business model. The benefits which ICT could offer to the public sector are phrased in the terminology of a market in services, with the citizen understood as consumers. The overall objectives often cited are: 'greater choice' and a better 'customer experience'. In his Canadian report, Trudel mentions, for example, that the government transition to electronic services has been seen as if its services were analogous to those of enterprises that sell or offer services online. Moreover, it is suggested that the Canadian government should become a model user of ICT given that a government's commitment to electronic commerce would be a key means of unleashing the enabling effect of ICT in government and in the economy as a whole.²⁵

In France the model of e-government development is based on cooperation. The objectives of the French cooperation model, as described by Chatillon, are service-based with the user as a starting point; citizens are key customers of the administration. The administration must put itself in the position of the citizen as a consumer. However, this does not imply that the 'business' dimension of public bodies should be neglected: first and foremost, the administration should be able to be profitable and in control of its own finances.

UK studies into citizens' perception of e-government services, appear to indicate that they are only in favour of such services if they provide additional benefits compared with traditional forms of interaction. As indicated by national reporter Schafer, successful e-government, by implication, would therefore have to result in much more than just more efficient delivery of already established programmes and procedures. One step further is a vision where e-government is merely a part of a broader vision of the e-society. Illustrative in this respect is the "UK online initiative", launched in 2000. It aims not just to see e-government and e-commerce as rather similar developments, but to work on an even more comprehensive vision of a society in which people, businesses and governments are all online.

A final interesting observation on framing the discussion about e-government development in terms of e-commerce is made in the UK report. Schafer argues that the consequence of looking at e-government developments from a business-model framework is that the output and 'success' of e-government initiatives is likely to be quantified in terms of the number of site hits, the number of transactions conducted or the number of websites created. "Issues that are less easily quantifiable, such as the quality of the citizen participation in the democratic process or the quality of the legislation created after e-consultation gets considerably less attention and risks becoming marginalized."

²⁵ See e.g. the Canadian report, mentioning the 1997 Information Highway Advisory Council report entitled *Preparing Canada for a Digital World, Final Report of the Information Highway Advisory Council*, September 1997, p. 129. Available at: http://www.igr.ca/pdf/documents/768_Preparing_Canada_for_a_D.pdf.

3. Legal and Regulatory Initiatives

Clearly, e-government will affect the existing legal framework. But to what extent, and does it necessarily imply that applicable rules have to be changed because they are not fit for the new technological developments in the public sector? A glance at the country reports shows that the most persistent legal issues that arise in relation to e-government are: privacy, the absence of paper-based documents and signatures, confidentiality and reliability and, finally, access to and the reuse of public sector information. Several of these issues resemble those faced in the e-commerce domain (e.g. security, e-signatures, authentication). It could thus be argued that in dealing with them, an approach from one single 'online' perspective would be the obvious route to take. The German country report however warns that some legal challenges for e-government are unquestionably distinct and more demanding than those for e-commerce. An example of the specific dimension of e-government is the principle of individual freedom of citizens to choose the media used to communicate with public sector bodies. As argued by Thomas Fetzer, the use of ICT in e-commerce and e-business "is the direct result of entrepreneurial activity in e-business and e-commerce and can typically be justified by efficiency gains, whereas efficiency is merely one of several relevant aspects within e-government. In contrast, legal aspects play a paramount role when it comes to the permissibility of e-government employment: the use of electronic communication devices can be regulated by statutory and/or constitutional law, especially with regard to the access of citizens to governmental information. Statutes and constitutional provisions can also limit the use of electronic communication devices, namely with regard to the exchange of information between administrative agencies through which the data protection rights of citizens could be affected." As will be noted hereunder, other country reports also refer to challenges that differ in their dimension from the e-commerce problems.

When considering the legal rules with which e-government applications must comply, a starting point could be the well-known principle that the legal provisions of the off-line world can be applied and upheld in the information society. For if the law for the on-line environment can fit in with the existing system of the law, advantages in consistency, legal clarity, and legal certainty can be gained.²⁶ The Swiss report mentions that this principle – which is often referred to as the principle of *what applies offline applies online* – is, broadly speaking, valid in Swiss law. "The online world is not disconnected from the legal one, and many laws adopted long before the creation of the worldwide web still apply to online transactions. E-government projects must in particular comply with statutes more specific to the field, such as the general principles of administrative law and procedure (especially rules

²⁶ See on this in detail B.-J. Koops, *et al.*, (Eds.), *Starting Points for ICT Regulation. Deconstructing Prevalent Policy One-Liners* (2006).

of inter-service information exchange), data and private sphere protection law, administrative transparency law, and, when applicable, intellectual and industrial property law, contract law and private international law.”²⁷ Although none of the other country reports expressly refers to the applicability of the principle, it becomes implicitly clear for the discussion that various traditional legal rules apply in the online dimension. However, it is also shown that in some situations rules specific to e-government appear to be necessary. Here the Swiss report mentions such examples as the express recognition of e-voting as a valid voting method, or replacing the hand-written signature by an electronic one. Reading the Swiss report, an interesting observation as regards the possible impact of regulatory change on the progress of e-government can be made. The report notes that online interaction with tax administrations is surprisingly low in Switzerland. “Neither the Confederation nor most cantons have been able to propose full online services so far.” The author of the report considers that this state of affairs is partly due to legal obstacles (such as a required amendment of the relevant rules to replace the old hand-signed tax declaration by an online one).

3.1. Need for Regulatory Change

In looking for available examples of specific legal and regulatory initiatives in the light of e-government developments, one is faced with the methodological problem that it is often not clear whether these initiatives are part of the e-government domain, or must be seen in a broader setting. Legislation in the area of personal data protection or the use of public sector information, for example, cannot be regarded as the core of e-government developments: legislative initiative does not make electronic data handling mandatory as such. However, the amendments to the Dutch regulatory regime on the archiving of public sector documents are a direct result of e-government development. The necessary amendments were introduced with the 2002 Regulation on the Arrangement and Accessibility of Records that contain specific requirements for digital records (e.g. with respect to metadata on content, form and structure, and technical data on conversion, migration and storage).

Aside from the methodological problem of qualifying regulatory change as ‘e-government legislation’, at a more conceptual level, it cannot be denied that e-government has a clear impact on the legal and regulatory framework.²⁸ First, the various country reports testify that the effect that e-government gives rise to in the law is in the ways of seeing and conceiving

²⁷ See in more detail on the interaction under the Swiss situation between traditional legal areas and e-government: <http://www.ge.ch/chancellerie/E-Government>.

²⁸ Although this conclusion cannot be drawn from all country reports. The US report states, for example, “there is nothing especially new about the relevant legal issues. In fact, the importance and interest in the field lies precisely in thinking through how tried-and-true legal principles, like equal access to government, reasonable protection for privacy, notice and comment rulemaking, and prevention of the misuse of the government’s surveillance power should apply to the new technology.”

law and traditional legal concepts in an online society. As such, legislative and regulatory initiatives are generally implemented to make sure that the legal framework does not pose obstacles to the use of ICT. Second – and as formulated specifically in the Canadian report – “e-government supposes the emergence of regulatory strategies that are designed in a manner different from those of the bureaucratic state in which information was contained primarily on paper.”

The discussion hereunder will show that e-government had a clear impact on the regulatory framework. But the opposite is true as well. Burkhard Schafer mentions in his UK report that legislation may act as a “catalyst” for e-government. He illustrates this with two pieces of formal legislation, which had a considerable practical influence on the UK e-government agenda (the Data Protection Act and the Freedom of Information Act).

A glance at the national reports shows that the majority of the countries did not opt for a general law on e-government. An exception to this is the Swiss canton of Neuchâtel. Here, the *Loi sur le guichet sécurisé unique*, or LGSU, regulates all e-government transactions. The act describes the whole system of e-government: competent bodies, data protection implications, architecture of the system, costs, responsibility, etc. Although no other country included in this general report has opted for a general e-government law, some have adopted specific rules that deal with certain generic aspects of e-government development. One such example is Spain. Galindo refers in his study to the decree on the use of electronic and telemetric techniques in the state administration²⁹ and the decree on the organisations in charge of e-administration.³⁰ Another example is the Dutch Online Administrative Business Act (‘Wet elektronisch bestuurlijk verkeer’), which amends the General Administrative Law Act (‘Algemene Wet Bestuursrecht’). This act deals with various aspects of electronic communications between government bodies, on the one hand, and between government and citizens/businesses, on the other.

Regulatory change is often realised through the amendment of existing legal regimes for the purpose of authorising or facilitating the use of electronic communications (e.g. electronic signatures in addition to handwritten signatures). This can be realised in different ways. A country can opt to amend each and every specific legal act that might exclude electronic communication. Another option is to adopt a general law that applies to all relevant situations. Illustrative for the latter strategy is the Canadian situation. Here, the *Uniform Electronic Commerce Act* applies to all legal situations, except for those explicitly excluded. Its purpose is to allow the use of electronic documents without requiring the amendment of all individual rules that might pose problems for e-government or cast doubt

²⁹ Royal Decree 263/1996 of 16 February 1996, available at <http://www.igsap.map.es/cia/dispo/8497.htm>, modified by Royal Decree 209/2003 of 21 February 2003 on the use of telematic registers and notifications and of electronic certificates.

³⁰ Royal Decree 589/2005 of 20 May 2005, available at: <http://www.csi.map.es/csi/pg2027.htm>.

on the validity of electronic communication. The Canadian Act, as is mentioned in the country report, is not designed to solve all problems or reform the substantive rules that are applied in various areas. It introduces definitions meant to ensure the legal acceptability and validity of documents on electronic media, and contains provisions concerning the delivery and preservation of information, as well as rules about sharing electronic documents. The Canadian *Uniform Electronic Evidence Act* is designed in a similar manner.³¹

Finally, to what extent is regulatory change initiated at a national level? Or are the various amendments the result of international regulatory activity? In Europe, we note that the overwhelming majority of legal changes that have an impact on as well as facilitating e-government have been implemented as a result of EU regulatory initiatives. This is the case for the national personal data protection regimes that give effect to the Privacy Directive (95/46/EC). Other examples of implementation measures for EU rules that affect e-government are the Electronic Signatures Directive (1999/93/EC),³² the E-Commerce Directive and the Directive on re-use of public sector information (2003/98/EC). Another major international source for national regulatory initiatives relevant to e-government is the United Nations Commission on International Trade Law (UNCITRAL). Various country reports testify that the model laws developed by UNCITRAL played an important role in the development of national regulatory change. Canadian legislators, for example, based their work on the principles laid down in the model laws on electronic commerce³³ and electronic signatures.³⁴

3.2 Use of Guiding Principles

When considering the legislative and regulatory initiatives in the various countries analysed in the different reports, one notes that so-called guiding principles often act as some sort of backbone when formulating new rules. The Canadian *Act to establish a legal framework for information technology* is based on a number of such guiding principles: functional equivalence, technological neutrality and the voluntary use of online tools. The very same principles govern e-government transactions and the resulting procedures under the Dutch regulatory system. One of these guiding principles appears to be specific for the

³¹ Uniform Law Conference of Canada, *Uniform Electronic Evidence Act*, <http://www.ulcc.ca/en/us/index.cfm?sec=1&sub=1u2>.

³² European Directive 1999/93/EC on a Community framework for electronic signatures, 13 December 1999, O.J. 2000, L13, 12.

³³ UNCITRAL Model Law on Electronic Commerce with Guide to Enactment, amended 1998, http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html.

³⁴ UNCITRAL Model Law on Electronic Signatures with Guide to Enactment, 2001, http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2001Model_signatures.html.

e-government dimension, whereas the other two are also prominent in the discussion on regulatory change in the light of e-commerce developments. We will briefly touch upon all three and start with the principle that is specific to e-government.

3.2.1 Voluntary Use

The guiding principle that is prominent on the e-government agenda of several countries is that of the voluntary use of electronic applications: no e-government service is delivered exclusively online. Depending on the choice or the specific situation of the citizen, he or she must be allowed to get things done without the use of ICT. In other words, citizens should have the possibility to have all interactions with the state done without a computer or an e-mail address. Likewise, some countries expressly regulate that citizens cannot require that a public authority delivers its services solely through digital means. The Danish Ombudsman has for example established that according to Danish law a citizen or company cannot be required to communicate digitally with the public administration when this is not specifically warranted.³⁵ In accordance with the *Uniform Electronic Commerce Act*, Canadian legislation also does not compel the use of electronic means. It is noted that the amendments to the legal framework are implemented to facilitate digital transactions, not to force citizens to use electronic means. Another example where this principle is prominent is The Netherlands. In addition, Dutch law stipulates that a citizen cannot require a public sector body to deliver its services online. An exception to this is seen in Denmark. Here, the public authorities have by means of the so-called ‘agreement e-day 1/e-day 2’ committed themselves to receiving communication in an electronic form. Since e-day 2 this also applies to sensitive data if they have been encrypted.³⁶ The agreement on e-day 1/e-day 2 thus warrants that an authority can be compelled to communicate digitally.

A principal reason to work on the basis of this principle is to guarantee equal access and to avoid the digital divide. The Swiss report expressly refers to the digital divide argument and the disparity between those who have ready access to computers and the know how to use them, and those who do not. Obviously, the guarantee of equal access to e-government functions is of fundamental importance to the legitimacy of government. The US country report mentions that the E-government Act attempts to bridge the digital divide from both ends. “It directs agency heads to (1) ensure that the availability of Government information and services has not been diminished for individuals who lack access to the Internet; and (2) pursue alternate modes of delivery that make Government information and services more accessible to individuals who do not own computers or lack access to the Internet.”³⁷

³⁵ Cf. P. Blume & H. Ch. Spies, *Law and Digital Administration* 61 (2005).

³⁶ More information on this initiative is available at: <http://www.e.gov.dk>.

³⁷ Section 202 (c) of the E-Government Act, 44 U.S.C. 3501 note (Supp. II 2002).

Another underlying reason mentioned is that of fairness. Trudel notes: “Fairness with respect to all citizens is required more of government online services than of those of enterprises. The latter can easily choose to abandon clients who are not disposed to use the Internet. The state cannot make this kind of decision.”

As mentioned, several country reports testify to the fact that there is free choice as regards the manner of communication: paper-based or digital. The Danish report, however, mentions that where the users in question are either companies or other authorities, there is an increasing tendency in ad hoc legislation to enable the public sector bodies to require digital communication.³⁸ “Basically, it may be emphasized that the administration employing online systems often entails an alleviation for citizens and companies. There seems to be a general, but so far undefined and inaccurate, tendency to think that the administration’s customers (citizens/companies) must be given an incentive to utilize this type of administration. One may foresee a situation in the future where it becomes mandatory.” This tendency is also visible in The Netherlands. As of January 2005, companies are legally obliged to electronically file tax declaration forms with respect to, amongst other things, income, corporation and turnover taxes.

Relevant in the light of this first guiding principle is also the requirement that a citizen and likewise a public sector body must explicitly agree to the use of electronic communication in order to provide legally binding effect to this communication. In Germany, §3a para.1 VwVfG (*Verwaltungsverfahrensgesetz*) stipulates that legally binding electronic communication between a public sector body and a citizen is only binding when the recipient enables the actual reception of those documents, thus opening up recipient accessibility. Or, in the words of Fetzer: “The mere and sole fact that a recipient may dispose of the necessary technological apparatus in order to receive electronic documents, however, will typically not suffice. It must also be evident that an electronic access has been opened. (...) For the typical citizen, one can therefore only assume a recipient accessibility if she has explicitly agreed to use her e-mail address as the form of document reception.” A similar requirement was implemented in the Dutch Act on Electronic Government Communications. The communicating parties must have given express notice that they prefer their communication to be done by electronic means. The sole availability of an e-mail address does not amount to this requirement. As

³⁸ There exists one Danish example where citizens are forced to use digital communication. Blume and Spies note “In the act on public payments etc. section 1, it is stated: ‘Persons above the age of 18 years who according to The Act on the Central Person’s Register have been allocated a PIN number and who have not been registered as having left Denmark shall assign an account at a Bank (an Easy account) in which the public authorities may deposit payment. The same applies to persons below 18 years of age if they, according to this Act, have been allotted a PINnumber and are receiving payments from the public.’”

Van der Hof mentions, “Government bodies can give notice with respect to specific forms of e-communication in different ways, i.e. through a general regulation, an individual e-mail message, on websites, the local paper, etc.”

3.2.2. Functional Equivalence

The second guiding principle that we come across in different country reports is that of functional equivalence. It refers to the equivalence of the functions performed by either a written or electronic document or signature. For example, the function of placing a signature under a document is to record the signatory’s consent as well as to identify and establish a link with the person signing. Working on the basis of the principle of functional equivalence, the relevant legislative acts stipulate how this link is to be established when electronic alternatives are used. In other words, if the written form is to be replaced by electronic forms, specific criteria guarantee that all functions of the written form are contained within the specifically applied electronic form. Illustrations of the functional equivalence principle can be found in various countries. For example, in Germany, the requirements for electronic forms were laid down in the 2001 Signature Act (*Signaturgesetz*).³⁹ The German regime adopted the Directive on Electronic Signatures. As mentioned above, this is one of the EU Directives that affected national regulatory regimes relevant to e-government. A similar situation applies in The Netherlands, In France, the principle of functional equivalence was included in a 2005 proposal for an Act providing the requirements for digital and written documents issued and received by administrative bodies. This Act is part of a larger legal reform started in 2003 with the objective being to simplify administration procedures. In Switzerland, the federal legislature included provisions according to which all writing can be filed in electronically, provided that it is in an accepted format and is accompanied by a valid digital signature. The provisions will enter into force on 1 January 2007. Outside the domain of electronic signatures, the principle can for example be found in the Dutch Act on Electronic Government Communications. It requires that electronic messages should be sufficiently reliable and confidential as regards the nature and the content of the message as well as its purpose.

Another illustration is section 9 of the Canadian *Uniform Act*, which stipulates the criteria that have to be met for information provided in an electronic form to be considered valid.⁴⁰ As mentioned above, Canadian common law has been adapted to meet the requirements of online transactions in accordance with model international commercial laws drawn up by UNCITRAL. The UNCITRAL principles were transposed into Canadian law through the

³⁹ Signature Act – Gesetz über Rahmenbedingungen für elektronische Signaturen – Signaturgesetz, 22.05.2001, zuletzt geändert durch Gesetz v. 07.07.2005, BGBl. I 2005, 1970.

⁴⁰ Uniform Law Conference of Canada, *Uniform Electronic Commerce Act*, <http://www.ulcc.ca/en/us/index.cfm?sec=1&sub=1u1>.

development of a Canadian model law by the Uniform Law Conference of Canada. The text was adopted in September 1999. Its status is that of a recommendation to federal, provincial and territorial legislators in Canada.

A notable dimension when looking at the manner in which legislatures deal with the functional equivalence principle is the actual approach taken. Some countries opt for a so-called negative approach in permitting electronic communication, meaning that the regulatory system declares that a document is not invalid solely because it is not on paper. In contrast, the positive approach rather than limiting itself to saying that the fact that it is in electronic form is not a reason to consider it invalid, works from the starting point that a document can have full legal validity, no matter what its medium. The main difference between both approaches is the level of legal certainty. The first approach leaves open the question of what requirements are necessary for a technological document to have the same value as a paper document. The latter approach expressly stipulates what is required for a document to be fully legally valid. An example of the positive approach is Québec's legislation. The negative approach can be found in The Netherlands.

3.2.3. Technologically Neutral

A final guiding principle that is mentioned in light of the establishment of a regulatory framework that facilitates e-government is that regulatory changes need to be technology-neutral. In brief: the legislator must remain impartial with respect to the specific technology, technological standards or technological norms chosen. In the different country report various examples may be found that illustrate this ambition. The Canadian report expressly refers to this principle when discussing the Canadian *Uniform Electronic Commerce Act* that does not specify the technology that has to be installed in order to achieve a given result. It also mentions the principle in discussing identification processes: the regulatory regime does not specify the means or processes to be used for establishing a link between a person and an identification document. Instead, it stipulates the results sought and the criteria to be met to confirm the identity of a person. Other country reports make more implicit references to the guiding principle.

An example where the principle was not at all guiding in formulating new rules is that of electronic signatures. The EU Directive – and thus the national implementation acts – contains specific rules dealing with so-called advanced electronic signatures. As a result, the regulatory regime refers to the specific technology of digital signatures, which may in the future lead to a situation where the electronic signature legislation needs revision because future technologies provide new forms of reliable and authenticated electronic communication.

3.3. Key Challenges in Regulating E-Government

As we have seen, the country reports list a large number of legal issues that need to be addressed in developing and implementing an e-government ambition and design. The legal spectrum of issues ranges from the dematerialization of government communication, access to public sector information, archiving e-mail and other digital documents, to e-procurement and open source. The different country reports show a rather scattered picture in mentioning and discussing these issues. There are however two issues that are considered to be key challenges in many of the reports: privacy and identification. Both appear closely related, but have their own dimensions.

3.3.1. Privacy

A glance at the different country reports shows that privacy and more specifically, personal data protection, raises challenges that significantly differ in the e-government setting than in e-commerce. One of these differences relates to the fact that a popular design concept of e-government is multiple use and ‘one shop’ accessibility. All public sector services must be accessible from one website. Also, personal data that are characterised by their multiple use within the public sector need to be available for a wide range of public authorities. It is argued that citizens do not want to fill in the same form twice, and want fast and efficient service delivery. And where digital communication no longer requires a physical separation between departments, joined-up use and exchange of personal data across government departments becomes possible. Illustrative is the Dutch project ‘streamlining of key data’, that allows for multiple use by all relevant public sector bodies of certain key data.⁴¹ The state becomes, so to speak, more monolithic, as is observed in the Canadian report. More than with e-commerce initiatives, the popular e-government design of ‘joined-up’ departments and ‘one-shop’ services raises concerns regarding data protection and privacy. For such a monolithic state is not effective when hindered by – privacy-protective – Chinese walls between different public sector organizations. In essence, e-government raises new dilemmas and challenges in balancing between privacy and convenience. The tension between convenience and privacy is prominent in the UK report (April 2002) entitled *Privacy and data-sharing: The way forward for public services*, issued by the Performance and Innovation Unit (PIU).⁴² Citing country rapporteur Schafer: “‘Data efficiency’ becomes the buzzword to reconcile the immanent conflict between privacy and data protection, with a clear emphasis on ‘better’ use of

⁴¹ See www.stroomlijningbasisgegevens.nl. The project aims to realise this ambition through a system of key registers (i.e., registers on natural persons, companies, plots, addresses, buildings, and geographic maps).

⁴² Available at: <http://www.informationcommissioner.gov.uk/cms/DocumentUploads/150402%20privacy%20&%20data%20sharing.pdf>.

personal data to deliver smarter, more trusted, public services. In this way, the legal conflict is rephrased in managerial terms of efficiency, implicitly assuming that efficient data handling is always also going to be more “privacy compliant”. The tension has a clear effect on the applicable legal notions. Most personal data protection regimes, including those discussed in the country reports, work with the notion that personal data must only be collected if necessary. Needless to say, this notion becomes irrelevant if the public sector bodies have a need for personal data for the very reason that they work together or depend on each other for the availability of crucial data.

In addition to the aforementioned privacy challenges that arise as a result of internal developments and ambitions, there are external threats as well. Of these, the fight against terrorism and crime control have the most prominent effect on legitimate privacy intrusions. Clearly, surveillance and the endless opportunities given by ICT for effective surveillance play a crucial role in dealing with both. The US report qualifies the surveillance powers of the government as perhaps the most important of all e-government issues. It is recognised that e-surveillance, in which ICT magnifies the surveillance powers of the government and its concomitant power to invade the privacy of citizens, may be of great use in detecting, prosecuting, or even preventing crime or acts of terrorism. Given that e-surveillance carries with it the potential for abuse (because to be effective e-surveillance entails a large measure of secrecy), the challenge here is to strike a proper balance between the interests of national security and crime control, on the one hand, and individual privacy, on the other. Reasonable controls laid down in regulatory regimes often do not suffice. In addition, these controls require institutional checks and balances. And, as noted by Reitz, “in the end, we cannot escape the necessity of having executive and legislative leaders whom we can trust to subject the secret processes to fair and vigilant oversight.”

3.3.2. Identification

The issue of privacy protection in an e-government setting is part of the broader challenge of identification. For as the use of digital communication and interaction spreads, public sector bodies need appropriate mechanisms to meet identification needs. And the specifics of electronic communication require the use of mechanisms other than those applied in the physical world. For in order to be sure in an electronic environment that certain rights and obligations are rightfully attributed to citizens, it is necessary to implement certainty and transaction security requirements. Several country reports mention the introduction of an e-ID card that allows electronic documents and contracts to be digitally signed, and to identify and authenticate citizens in a digital environment. Most often this card incorporates some sort of electronic signature. Transposing into digital environments the requirements and rules that

govern these new identification practices in turn entails specific legal regimes. Illustrative are the regulatory regimes introduced under the e-signature legislation. All country reports discuss these regimes. In its 2006 Action Plan on e-government, the European Commission regards e-identification as a key enabler for its e-government ambitions. As regards a possible harmonisation within the EU of e-identification, the Commission observes that EU countries are already implementing electronic identification management (eIDM) “meeting national service needs, cultural traditions and personal data protection preferences. Harmonised national ID cards might be one specific means to implement public service eIDM, but this is a national choice. Biometric national ID cards and eIDM for public services are markedly different: national ID cards serve public security, for example by facilitating integrated border management and supporting the fight against terrorism, whereas electronic identification for public services is intended to ease access and offer personalised and smarter services. Member States recognise the importance of eIDM for ensuring that.”

However, the interaction of identification interests and ICT developments provides the topic with a second dimension. ICT applications allow for various new opportunities for identification: personalised, unique and centralised. National identity cards with biometric applications appear to be very popular on the policy agendas of various countries. Although some country reports refer to a line of thought that is (still) hostile to the idea of a nationwide identity card (Canada), other countries appear to institute identification schemes that show a clear tendency towards central and unique instruments to link a person with a document or other identification mechanism. Country reports show, however, that the earlier climate of a strong rejection of a national identification scheme has recently turned into a more favourable attitude. In other countries, policy makers decided to take advantage of certain reforms to introduce a national identification scheme or used the backdoor of another policy ambition to realise a national identification number. An example of the latter is the so-called Citizens Service Number in The Netherlands. This general and unique number makes the cross-referencing of data contained in the various public sector registries a lot easier. An example of the first is Switzerland. Here, a national identification number was proposed in 2003 by the federal authorities.⁴³ To cite the country report: “The bill was strongly rejected during the consultation process. In 2004, the federal authorities submitted an amended bill proposing sectoral identification numbers (6 different identification numbers per citizen, according to the administrative domain concerned). This time, not only did the data protection advocates reject the bill in consultation, but also a majority of cantons believed this system would be too complicated and too expensive to implement. Nevertheless, in 2005 the federal Council (the executive branch of the Confederation) decided to take advantage of a reform of the health

⁴³ As mentioned in the Swiss report, this proposal also had purposes not associated with e-government, such as simplifying the decennial census procedure.

insurance system – which called for a new definition of the social security number⁴⁴ – to introduce a single identification number (that will be used as of 2008-2010 for administrative and statistical purposes). This decision, even if carried by Parliament, may not take effect if a petition for a popular referendum is signed by 50,000 citizens and the bill is then rejected by the population in the vote that follows.”

A final observation worth making here is the Canadian practice, where specific limits have been set on the permissible use of certain techniques for identification needs. Illustrative is section 43 of the *Canadian Act to establish a legal framework for information technology*. It provides that “A person may not be required to submit, for identification purposes, to a process or device that affects the person’s physical integrity.”

4. Conclusion

We come to some final observations. This report has shown that the development and deployment of an e-government ambition raises numerous questions, dilemmas and fundamental issues. Having presented and analysed these in the different country reports, the national rapporteurs show us that e-government is a highly complex development. Numerous context-specific conditions, ambitions, service models and nation state perspectives may determine the actual development and success of the broad notion of e-government.

When looking more specifically at the regulatory dimension, the country reports have shown that the legal challenges of e-government are in some aspects similar to those arising in an e-commerce setting. Yet some legal implications of e-government are unique. We have elaborated, for example, on the specific dimensions of privacy and personal data protection. Another example is the principle that public sector bodies cannot obligate citizens to solely use digital communication. A company can easily dispose of its clients that do not use the Internet. This cannot and may not be an option for the public sector.

The analysis of the country reports further shows that legislative reform alone is not a guarantee to the successful development of e-government. Despite the fact that legislatures have undertaken considerable efforts to develop and provide legally secure e-government applications, the uptake of digital government services remains slow. It is noted that the reason for this lies more on the demand side: citizens fail to take advantage of offered e-government applications and services, mostly due to ignorance concerning their existence or unfamiliarity with the advantage that e-government can bring. Partly, this has to do with factors such as age. Much has to do, however, with a lack of confidence and a public sector that ignores the importance of comprehensive educational and informational work.

⁴⁴ Already in widespread use as an identifier, especially in the army and for tax purposes.

A final and most important observation that can be made is that traditional regulatory regimes are changed not merely as a response to e-governance development. They also alter because electronic services, digital communication and online interaction de facto change the environment within which these regimes operate. For what the aforementioned sections show is that with the design of e-government a new state paradigm emerges. Opportunities and developments such as personalised services, data sharing, public-private partnerships, the blurring boundaries between the public and private sector and the almost unlimited power of knowledge that the government acquires by using new technologies, change the very relationship between the law and its object of regulatory focus: the public sector. As is observed in the Canadian report: “Moving from vertical, program-driven service delivery to a more horizontal, user-centric model will require a substantial review of existing legislation, regulations, policies, processes, and protocols and eventually a fundamental overhaul of the basic machinery of government.”⁴⁵ Trudel argues that this transformation will challenge some of the most fundamental and long-accepted principles of public law. “It means going from a model of accountability based on a pyramidal conception of authority within government departments to a model in which accountability is horizontal and open. In short, accountability will have to be completely rethought so as to reflect the way that government online works. It seems that shared accountability and appropriate distribution of responsibility will be major issues in public administrative law in the years to come.”

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⁴⁵ http://www.gol-ged.gc.ca/pnl-grp/reports/second/transform/transform11_e.asp.