Designing Electronic Government Around the World.  
Policy Developments in the USA, Singapore, and Australia*

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1. Introduction

A rumor circulated in Washington DC that every head of state who visited former President Clinton at the White House was guided downstairs at the end of their meeting and then met by Vice President Gore who showed them a huge scale model of the Internet. After having explained the American government’s policy programs regarding the Internet, the following message was conveyed by the vice president to the honourable guest: ‘this is the way you should develop your national information infrastructure’.

Since the Americans opened the Internet in the early 1990s to everyone in the world, the Internet has indeed been acknowledged in many countries as an important infrastructure enabling various interactions to be redesigned in their society. For instance, the Internet is widely perceived as a medium to enable the transformation of government and its relationship with society. Consequently, visions of a new government of the future, a so-called ‘e-government’, appeared in various policy documents around the world. Some of these visions and their related policy programs are explained in other chapters of this book most of them can be located in Europe. In this chapter, a brief exploration of e-government developments in other parts of the world will be made. Widely acknowledged leading countries such as the USA, Singapore, and Australia which have been eager to take up new ICTs like the Internet, will be quickly scanned on their national policy developments with regard to e-government.

Bearing the above-mentioned rumor in mind, the question arises as to whether these three countries are heading in a similar direction as regards

building a new government by means of ICT. To what extent can we perceive similarities in e-government developments around the world? Can we expect to have a single model of e-government in the long run, or are national governments around the world too different from each other, in spite of using the same kind of ICT-infrastructure as a major change agent for government? After having looked at e-government developments at the national level in successively the USA, Singapore, and Australia, some answers to these questions will be provided in the last paragraph of this chapter.

2. The United States of America

As said before, the United States of America (USA) has been one of the first countries in the world where new ICTs like the Internet were perceived as an important means to transform government and its relationship with society. As early as 1993, Clinton and Gore announced during their election campaign the development of an ‘information highway’ which would no longer be exclusively accessible to universities and companies, but could be used by everyone at any place and any time. As part of the broader reinventing government framework of the National Performance Review (NPR), the newly elected Clinton-Gore administration published in September 1993, a policy document entitled ‘Reengineering Through IT’. Perceiving ICT as the essential infrastructure for the government of the 21st century, Clinton and Gore presented a policy agenda in this document to build the government of the future: the electronic government. In their vision, this electronic government ‘...overcomes the barriers of time and distance to perform the business of government and give people public information and services when and where they want them. It can swiftly transfer funds, answer questions, collect and validate data, and keep information flowing smoothly within and outside government’.2

With this aim, an efficient, customer-oriented electronic government was envisaged. By putting this vision into practice, the purpose was not to automate traditional working processes of government through ICT, but to fundamentally rethink how people in government work and how to serve customers. The interaction between government and citizens would be transformed with the goal to provide better access to government services. Or, as it was stated: “it’s all about putting people online, not in line”.

To implement the vision of electronic government the following seven initiatives for further action were proposed (Lips and Frissen, 1997, p. 118):

- to implement nation-wide, integrated electronic benefit transfer;
- to develop integrated electronic access to government information and services;
• to establish a national law enforcement/public safety network;
• to provide intergovernmental tax filing, reporting, and payments processing;
• to establish an international trade data system;
• to create a national environmental data index; and to plan, demonstrate, and provide government-wide electronic mail.

It is important to be aware of the fact that Clinton and Gore could only propose a policy agenda which would be limited to the US federal level, and those policy areas in which the federal government has authoritative powers. In the USA, states and local governments have their own autonomy to develop e-government initiatives. This also applies to the proposed policy actions in the ‘Reengineering through IT’-document to establish necessary support mechanisms for electronic government. Among the proposed policy actions were the development of a coherent government information infrastructure, the development of systems and mechanisms to ensure privacy and security, the training and technical assistance in ICT to federal employees, and the provision of incentives for innovation within government (Lips and Frissen, 1997, pp. 119–120).

The NPR-policy program was continued in 1997 under the name of ‘Access America’. A blueprint for further development of the federal electronic government program was published which, in fact, slightly differed from the original ‘Re-engineering through IT’-policy agenda. The objective formulated under the new ‘Access America’ policy program was to allow every American citizen to transact business with the government electronically, and to do so easily and quickly. At present, the various policy initiatives as described in the blueprint and the earlier policy agenda have been put into practice. Some projects are being further developed, partly on the basis of new technological facilities since 1993 (for instance, the possibility of using smartcards). In addition the NPR-program has been renamed. To particularly emphasize the participation of parties outside the federal government, such as the Postal Service, Internal Revenue Service, and Social Security in the reinvention program, it was decided to change the name from the National Performance Review into ‘National Partnership for Reinventing Government’ (NPR).

As a result of the US Paperwork Reduction Act, the federal government was obliged to offer all federal services and transactions online by 2003. Therefore, in late 1999, former president Clinton issued a series of directives, which are referred to as the so-called ‘e-gov’ framework. Three main strategies formed the basis of this framework, viz. to ensure privacy and security, to increase agency use of automation to transact services, and to adopt cross-cutting electronic government initiatives. More specifically, the heads of the federal government’s executive departments and agencies were directed to take the following actions:
• to promote access to government information organized not by agency, but by the type of service or information that people may be seeking; the data should be identified and organized in a way that makes it easier for the public to find the information it seeks;
• to make as far as possible the forms needed for the top 500 government services used by the public available online by December 2000;
• to promote the use of electronic commerce for faster, cheaper ordering for federal procurements resulting in savings to the taxpayer;
• to continue to build good privacy practices into their web-sites by posting privacy policies and by adopting and implementing information policies to protect children from viewing information unsuitable for them on web-sites which are otherwise dedicated to children;
• to permit greater access to agency officials by creating a public electronic mail address through which citizens can contact the agency with questions, comments or concerns. Also, to provide access to federal web-sites for people with all kinds of disabilities;
• to conduct a 1-year study by the National Science Foundation examining the feasibility of online voting;
• in the policy area of benefits assistance, to make a broad range of benefits and services available through private and secure electronic use of the Internet;
• to develop private, secure, and effective communication across federal agencies and with the public, through the use of public key technology. In light of this goal, agencies are encouraged to issue, in coordination with the federal General Services Administration, a government-wide minimum of 100,000 digital signature certificates by December 2000; and
• for each agency to develop a strategy for upgrading its capacity for using the Internet to become more open, efficient, and responsive, and to more effectively carry out its missions. At a minimum, this strategy should involve:
  a) expanded training of federal employees;
  b) identification and adoption of ‘best practices’ implemented by leading public and private sector organizations;
  c) recognition for federal employees who suggest new and innovative agency applications of the Internet;
  d) partnerships with the research community for experimentation with advanced applications; and
  e) mechanisms for collecting input from the agency’s stakeholders regarding agency use of the Internet.

To help meet the goal of online federal service provision and transactions by 2003, the new NPR in partnership with the Council for Excellence in
Government started the ‘E-government Initiative’. Leaders from government, business, non-profit organizations, and the research community are participating in this initiative to produce an alternative, unified vision of e-government and to discuss current challenges and barriers to accomplish this vision. So far, several principles have already been acknowledged to guide this e-government vision. These principles are for instance to be citizen driven and user-friendly (for instance: one stop access), responsive and results oriented (for instance: citizens having the opportunity to complete transactions and receive services online), universally accessible, cost effective, and to use high standards for privacy, security, and for authentication (for instance: smart cards, digital certificates).

Also within the framework of the E-government Initiative, four areas were identified as critical for the implementation of e-government. First, transformation rather than just the automation of government, was perceived to be an important principle for making e-government a reality. Second, to achieve e-government both public and private organizations were perceived to be needed. This brought up the question as to how these organizations could work together and what roles they respectively need to have in such an e-government. Infrastructure to ensure privacy and security for electronic government was identified as a third critical area. And finally, the area of information was identified. Here, the content, format, architecture, and accessibility of information and transactions in an e-government environment were seen as important issues. Around these four areas, working groups were organized to further develop the e-government vision and the way it could be implemented. The release of a new blueprint for e-government has been announced for late 2000, after the presidential elections.

In his first webcast to the American people 24 June 2000 address, former president Clinton announced new policy initiatives ‘...to give the American people the “Information Age” government they deserve’. Goals of these initiatives were to cut red tape, improve the responsiveness of government towards citizens, and expand opportunities for democratic participation. For these purposes, the following three initiatives which are to be accomplished by the end of the year 2000 were presented:

- citizens will be able to search all online resources offered by the federal government from a single web-site called “firstgov.gov”;
- citizens, small businesses and community groups will have ‘one-stop’ access to roughly US $500 billion in grants and procurement opportunities; and
- citizens, students, researchers, and government employees will be able to compete for a new US $50,000 prize for the most innovative idea for advancing e-government.
After making basic government information available on the Internet, the next step of the US federal government towards e-government will be to give citizens the opportunity to conduct all government transactions online. The objective is to offer citizens integrated services across different federal agencies so they can tailor government to their specific needs. Therefore, services have been grouped on websites targeted on specific groups of customers, such as students, seniors, entrepreneurs, and workers. Projections are that by the end of 2000, approximately 40 million American citizens will do transactions with the federal government electronically. Besides by then, people will have the opportunity to access federal government information to solve problems themselves through the Internet, via telephones, and through neighborhood kiosks.

However, to see how Americans perceive the federal e-government developments today, a study was conducted for the Council for Excellence in Government in August 2000. The study included three surveys of 150 government officials, 155 business and non-profit leaders, and 1003 members of the general public, respectively. The results of the study showed that all groups of respondents perceived e-government to have enormous potential. According to them, e-government can improve citizen participation in government and make government more accountable to citizens. For instance, high marks were awarded to websites that allow citizens to look up voting records, comment on federal legislation, and monitor public hearings. Sixty-five per cent of the respondents however, indicated to want e-government to be developed slowly, because of their concerns about security, privacy, and the fact that many people do not have access to the Internet. Besides, 59% of the respondents perceived limits to e-government and were opposed to voting over the Internet.

3. Singapore

Although it is not well-known in the western part of the world, Singapore launched its IT2000 Master plan in 1992 even earlier than the USA. Committed to making ICT a way of life and exploiting new technological developments to the fullest, Singapore indicated that it wanted to develop into an ‘Intelligent Island’. Actually by means of this Master plan, and because it had a small domestic market and few technological resources of its own, Singapore tried to encourage foreign technology suppliers and lead users to transfer their technologies as well as to bring regional market business to Singapore (Wong, 1997, p. 26). The IT2000 Master plan started as a broad vision for which hardly any details were worked out. At that time, the following strategic objectives for a nationwide ICT infrastructure were identified: developing a global hub, boosting the economic engine, enhancing the learning potentials of individuals, linking communities locally and globally, and improving the quality of life.
of Singaporeans (Wong, 1997, pp. 33–34). One of the elements of the IT2000 Master plan was a blueprint for the use of ICT in nearly every government department.

The Singapore national government launched in 1996 its ‘Singapore ONE’-initiative, the implementation of a nation-wide high-capacity network infrastructure to which all Singaporeans are connected. The introduction of this national multimedia broadband network was acknowledged as being crucial to realize the IT2000 Master plan and, as such the essential infrastructure of the Intelligent Island. At present, for instance, the Singapore national government provides public services to its citizens through the Singapore ONE-network. Furthermore, it also uses the Internet and public kiosks for information and service provision.

With regard to the Internet however, a clear policy decision of the Singaporean Minister of Information and the Arts was needed to be able to broadly encourage Internet use and information abundance in Singapore. Although Singapore was one of the first countries in Asia to adopt the Internet,11 this was initially only accessible to the Research and Development community. At the end of 1994, the Singapore government finally decided to promote the Internet more broadly and to stimulate Internet penetration into businesses and households. This delay in widespread Internet take up had to do with the promotion of a communitarian ideology by Singaporean political leaders, who unlike politicians in western social democracies, prescribe the restriction of individual freedom of expression in the public domain and control over freedom of the press (Wong, 1997, p. 26). For instance, the Singapore government maintains tight control over newspaper publishing and broadcasting, and has a strict ban on pornography and satellite receiving dishes. This rigorous attitude of the Singapore government towards what they perceive as ‘information pollution’ has not changed in the Internet era, although the increasing difficulty of controlling information distribution through the Internet has been acknowledged. For instance, the Singapore Broadcasting Authority (Class Licence) Notification 1996 indicates the following categories of content, to which Internet providers have to block access for Singaporean citizens: general security and national defence, racial and religious harmony, public morals, and certain other content (Koops et al., 2000, p. 164). In addition, cross-border Internet traffic is directed through a limited number of proxy servers, where content is filtered (Ibid.).

So far, the IT2000 Master plan has been largely implemented. For ICT-policy initiatives aimed at reforming national government departments and agencies, the Infocomm Development Authority (IDA) can be seen as the responsible government agency. General tasks of IDA are to articulate ICT-policies and standards for the Singaporean civil service, to identify appropriate ICTs for experimentation and exploitation within government, and to manage government-wide ICT-initiatives.
Among other things, IDA established a multi-layered government-wide ICT Infrastructure and made extensive use of Internet technology and applications to improve communication and transactions between the Singapore national government and its citizens. Examples of the latter are a one-stop shop Government Internet Website set up in 1995, and an eCitizen Center where people obtain ‘one stop, non-stop’ online services and information. In providing services and information to citizens, the eCitizen Center has adopted the metaphor of a citizen travelling through life: going through certain events and having to complete certain tasks. Services and information of various government departments have been integrated into so-called ‘service packages’ that connect with these life events. Easy descriptions have been chosen for these service packages to every citizen such as: ‘move house’, ‘attend primary school’, ‘look for a job’. These packages are offered, as far as possible in chronological order through the stages of life of an average Singaporean.

The Singapore national government set a target in 1998, to make all key public services electronically available by the end 2001. The Electronic Transaction Act 1998 supports this goal in establishing a uniformity of rules, regulations, and standards regarding the authentification and integrity of electronic records in Singapore (for example: the use of digital signatures). Generally under Singaporean Law, electronic records and digital signatures enjoy the same status as traditional records and signatures by virtue of the principle of non-discrimination (Nicoll, 1999, p. 128). Presently, about 130 public services are now being delivered electronically through the eCitizen Center. From the perspective of new ICT opportunities, it is remarkable that the Singapore national government explicitly emphasizes its ‘one-stop, non-stop’ electronic government service delivery as being beneficial to all Singaporeans, including those who live abroad.

In June 1999, the Singapore national government presented the successor of the IT2000 Master plan, the so-called ‘ICT2’ Master plan. A basic blueprint ‘ICT21’ was published to develop Singapore into a leading ICT-hub in Asia. Measures to establish this leading position were for instance the liberalization of Singapore’s telecommunications market from 1 April 2000, helping Singaporeans to go online, developing ICT manpower and talent, building Singapore’s ICT industry, and gearing Singapore up to be a leading e-government.

The Singapore national government presented its ‘eGovernment Action Plan’ on 6 June 2000, through which it wants to become ‘...a leading e-government to better serve the nation in the digital economy’. For this purpose, the national government has allocated US $900 million over the next three years. According to the Singapore national government however, more important than funding for the Action Plan is the mindshift needed to push Singapore forward in the new economy. To achieve the Singapore e-government vision the following five strategic thrusts were presented in the Action Plan:
Delivering integrated electronic services: to establish an e-based society in the digital economy, the Singapore government wants to play a catalyst role by means of developing electronic services in an integrated and customer-oriented way;

Using ICTs to build new capability and capacity: government agencies have to move beyond productivity gains and create new value to customers through re-engineering traditional working processes. Consequently, civil servants will be equipped with the necessary skills, tools, systems, and infrastructure to make them effective workers in the digital economy. For instance, the Singapore Government Network (an Intranet facility) will be broadband-enabled in early 2001. A new network architecture and security framework will be implemented to allow over 30,000 civil servants to access systems and information at any time, anywhere;

Innovating with ICTs: the Singapore government has to be prepared to experiment with new ICTs to learn and develop capabilities for the digital economy. According to the national government, this new economy demands a ‘creative destruction’ approach towards existent policy making traditions, regulation and working processes. Consequently, government agencies need to experiment with, for instance, interactive broadband multimedia to provide a superior online experience in comparison with the online performance of the private sector. Also, experiments with wireless technologies are needed to be able to provide more convenient access to government services;

Being pro-active and responsive: like the private sector, government agencies will need to adopt a fast ‘sense and respond’ approach to be able to keep up with new trends. This means that public services must be delivered at Internet speed and continuously have to be fine-tuned to respond to customer needs and feedback. ‘Time to market’ for new public services is perceived to become an equally important standard as the quality of public services. ICTs will be used to enhance policy development, simplify regulations, and improve service levels;

Reinventing government in the digital economy: civil servants need to get a better understanding of the impact of ICTs on the economic and social landscape to be able to continue to make meaningful policy decisions. Therefore, civil servants will be equipped with the necessary knowledge and skills to use ICT-systems and applications effectively.

The following six strategic policy programs were identified to support the above mentioned strategic thrusts:

Knowledge-based working places for civil servants: civil servants at all organization levels must be ICT-literate and exploit the power of ICT to
improve working processes, public service delivery, and teamwork;

- electronic public service delivery: all public services which are suitable for electronic delivery or can be improved by means of ICT, should be reengineered accordingly;

- ICT experimentation: the government’s capability to adapt to rapidly changing ICT trends should be enhanced. Also, the probability of committing large investments in the wrong decisions should be reduced;

- operational efficiency improvement: up-to-date hardware, work engines and data processing are acknowledged to be the backbone of an efficient and effective government;

- adaptive and robust ICT Infrastructure: a well-designed, reliable, and scalable infrastructure is seen as critical for supporting e-Government initiatives and will therefore be implemented;

- ICT education: these education programs will go beyond learning about technical systems and applications and will teach civil servants how to use technology to improve working processes and public service delivery.

The Singapore national government will implement these policy programs in the next three years.

4. Australia

Australia is one of the leading countries in the world in terms of per capita use of the Internet just behind countries like the USA and Finland. Therefore, it is not surprising that in Australia the Internet is nowadays perceived as an important means for government to transform its working processes and to improve information and service provision to its citizens. For the first time in history, the Internet enables the Australian federal government to provide the same quality of public services to Australians living in rural areas as for those living in bigger Australian cities. E-government has therefore become an important policy vision for the Australian federal government to accomplish.

The first traces of an e-government vision and related activities in Australian federal policy can be found in 1995 in a report of the Minister of Finance’s IT Review group called Clients First. The challenge for Government information technology. This Review Group came to the conclusion that there was room for reform in how the Australian federal government used IT to develop policy and conduct its administration, identifying the greatest potential for the government in transforming the quality, range, and relevance of its service delivery to all kinds of customers. For this purpose, the Review Group’s recommendations to the government were for instance to develop a service vision. ‘…that puts clients first’, to provide a blueprint for public service
delivery, and to draw IT and corporate planning processes closely together in order to enable government reform by the use of technology. Also, the Review Group recommended a more vigorous pursuit of the benefits of cross-agency uses of IT to establish greater efficiency in government activities and better service delivery to customers.\textsuperscript{15}

Within the Australian federal Department of Communications, IT and the Arts a special Office for Government Online (OGO) was created to deal with all kinds of questions regarding the development of e-government at the Australian federal level. Recently, OGO became part of the National Office for the Information Economy, an executive agency within the Department of Communications, IT and the Arts. This new executive agency has been given direct responsibility for the development and coordination of advice to the Australian federal government on information economy issues (including issues related to technology and industry convergence and the regulatory and physical infrastructure needed for online services and e-commerce), the application of new ICTs to government administration, information and service provision, the assistance to business and government agencies to deliver services online, the consistency of the government’s position relating to information economy issues in relevant international forums, and the promotion (both nationwide and internationally) of the benefits of and Australia’s position in the information economy.\textsuperscript{16}

The Australian Prime Minister emphasized in 1997 the importance of the information age for his country in a policy statement ‘Investing for Growth’. He presented the various ways in which the Australian federal government was supporting the uptake of ICT-developments. An important role of the Australian federal government in this respect was to show how well the federal government itself could make the online transition. This was acknowledged to have a strong demonstration effect to other parties in Australian society. This is why the federal government committed itself and showed leadership by adopting new ICTs and improving service delivery and business practices. More specifically, the following commitments were made in this policy statement:\textsuperscript{17}

- to have all appropriate federal government services available online by 2001, complementing — not replacing — existing written, telephone, fax, and counter services;
- to establish a Government Information Center through the Office for Government Online as a main point of access to information about government services;
- to establish electronic payment as the normal means for federal payments by 2000; and
- to establish a government-wide Intranet for secure online communication.
The Australian federal government further emphasized in 1998, the importance of its leadership role in adopting new ICTs. In the policy statement *A Strategic Framework for the Information Economy* ten national priority areas were identified to make Australia a leading player in the global information economy. One of these key strategic priorities was to implement a ‘...world class model for the delivery of all appropriate government services online’.

For the (further) development of online service provision, the Australian federal government has recognized the major importance of resolving security issues. For this reason, OGO developed the ‘Gatekeeper’-framework for the federal government which addresses the needs of government agencies for public key technology to support authentication and identification in government online transactions. OGO’s ambition has been to establish a government-wide framework to provide interoperability, integrity, authenticity, and trust for both government agencies and their customers. All federal government agencies are expected to use the gatekeeper framework by 2001.

To manage the Gatekeeper Government Public Key Infrastructure (GPKI) and supervise the accreditation of certification authority service providers and their public key technology products, the Australian federal government created a Government Public Key Authority (GPKA). This Authority determined the following criteria for allowing the supply of public key technology products: compliance with the federal government’s procurement policy, security policy and planning, physical security, technology evaluation, certification authority policy and administration, personnel vetting, legal issues, and privacy considerations. In September 2000, 15 organizations applied for Gatekeeper accreditation, with one company fully accredited and two with entry-level accreditation.

The first large-scale introduction in Australia of digital certificates was carried out in June 2000 under the Gatekeeper framework. As a result of a taxation reform in Australia, a special Australian Business Number was introduced for Australian companies. The Australian federal government developed a common digital signature certificate to be linked to this Australian Business Number. This enables businesses to deal with the Australian federal government in a secure and authenticated online environment.

Agreement to common standards has been acknowledged as another key development towards online integrated public services. An important project in this respect has been the development of the Australian Government Locator Service (AGLS) metadata standard. This standard makes it possible for government agencies to describe and label public information and services in a standard way and will therefore assist customers to easily find government information across government agencies. Another key enabler for customers to quickly find government information and services at one online public service counter, has been the implementation of a cross-jurisdictional Government Electronic Resources Network (GOVERNET). This network has
been established under the auspices of the Australian Online Council, a council composed of all federal, state, and territory ministers with responsibility for online issues.

To be able to establish electronic payment as the normal means for federal payment by 2000, the federal government introduced its ‘e-Procurement Strategy’. This strategy consists of a framework of e-commerce standards for procurement and a series of projects and activities to implement electronic procurement. Aims are to have 90% of all government departments and agencies to electronically undertake ‘simple procurement transactions’ by the end of 2001 and to pay all suppliers electronically by the end of 2000. The idea behind this strategy is to, as a government, ‘lead by example’ in the field of e-commerce. Expectations are that this strategy will have significant influence on the economy-wide development of e-commerce in Australia.

The Australian federal government passed the Electronic Transactions Act in November 1999. This Act gives government agencies the opportunity to accept online communications as written communications for most purposes. Although this Act will formally be effective from July 2001, special clauses have been provided for to make it possible for some agencies to take immediate advantage from enactment.

To fulfil the government’s commitment to have all appropriate government services available online by 2001, the Australian federal government presented its ‘Government Online’-strategy in April 2000. The aim of this strategy for the federal government is to become more accessible, flexible, and responsive to every Australian citizen: ‘...people don’t want, or need, to know how government is structured. They want to access the services they need, easily and safely’. At the same time, the Australian federal government perceived new opportunities through ICT to provide a direct channel between government and the citizen. Australian citizens could get a greater familiarity with government policy and programs through their ability to customise their online channel with government. To emphasize the aim of the GovernmentOnline strategy, the strategy itself was constructed online and in an interactive way with the Australian public. Also after publication of the strategy on 6 April 2000, an electronic feedback service was offered at the government online website.

The GovernmentOnline strategy of the Australian federal government consisted of the following elements:

- improving public access to a wide range of government services, especially by people who live in regional, rural and remote areas or older Australians and people with disabilities. Here, the ambition is to break down the barriers of distance or mobility that some Australian citizens face;
- providing access 24 hours a day, seven days a week;
- reducing the cost of delivery of some government services;
• increasing efficiency-saving tax payers’ funds;
• reducing bureaucratic and jurisdictional demarcation to provide unified
  services based on user requirements. Australian citizens no longer will
  need to understand the structure of and distinctions within the Australian
government as a whole. Also, multiple approaches to accessing
information and services will be designed for different categories of
users; and
• encouraging growth of e-business (both business to business and business
to government), and associated opportunities.

To meet the objective of providing access to government information services
without the need to understand structures within government, a single entry
point for the Australian federal government (the ‘Australia Entry Point’ at
www.fed.gov.au) has been developed and managed by the ‘Australian
Department of Finance and Administration’.

To further understand the use of the Internet in public service delivery, the
Australian federal government adopted an agency-based approach to best suit
the needs of that agency’s clients and explore the possibilities for quality
service provision. Accordingly, each government agency had to develop and
publish an Online Action Plan by September 2000. This Online Action Plan
had to be based on a comprehensive audit of the agency’s information,
transactions, purchasing and other external arrangements; it had to be related
to the agency’s customer service charter and had to identify all functions which
potentially can be made available online; it had to identify services which can
be coordinated with services of other agencies; it had to identify an indicative
time frame for implementing the Online Action Plan; and finally it had to
indicate the barriers which need to be removed to achieve the 2001 target to
have all appropriate services available online.22 Also, a government agency
was obliged to address a number of specific issues in the Online Action Plan,
such as legislative issues, costs and benefits of Internet service delivery, and
risk control strategies for electronic service provision.

As in Australia all federal information principles are equally applicable to
the online environment as to traditional forms of information provision, the
federal government announced to implement Online Information Service
Obligations (OISO) for agencies in a staged manner. These OISOs need to
ensure the online availability of a minimum, common set of information about
agencies and their services and of any information released to the public in
printed form. By December 2000 for instance, all forms for public use must
be available online, to be downloaded and/or electronically completed.
Wherever possible the Australian federal government intends to apply the
principle of storing information once but linking to this information from
multiple sites. Besides, the federal government requires agencies to comply
their online activities with the Australian Privacy Act 1988 from 1 June 2000.
To assist agencies in this process, the Australian Privacy Commissioner published special guidelines covering issues like openness, collection of personal information, security of personal information, and publishing personal information.

To be able to monitor agencies’ progress towards the 2001 target, all government agencies have to report twice a year to OGO. On the basis of this reporting OGO will also monitor on progress of cross-agency and/or jurisdiction integrated service provision. Besides, in partnership with agencies, OGO is in the position to identify areas of potential cross-agency collaboration. The reporting process will enable agencies to benchmark their online activities and to identify best practices.

Results of the first round of reporting in July 2000 show that 91% of agencies are expecting to meet the 2001 target. At that time, already 526 of the 714 identified services were provided online. Other key findings in this first round of reporting were the following:

- 90% of agencies have a website and offer information and services to customers;
- 85% of agencies will have an Online Action Plan by the end of September 2000;
- 96% of agencies pay a portion of their suppliers electronically; and
- 79% of agencies expect to implement authentication and/or encryption technologies by the end of 2002.


Looking at e-government developments in the three countries, we can see a number of similarities between the national policy programs. For instance, the principle not to automate traditional working processes in government, but to fundamentally rethink the way government could work, seem to be an important guide in designing e-government in the three countries. In the USA, Australia, as well as in Singapore, the e-government of the future first of all seems to be a government which puts customers first. Better access to government information and services for all citizens equally (including those who are disabled, who live in rural areas or even abroad), can be seen as the main motive for the implementation of e-government in the three countries. So far, ‘one stop, non-stop’ access to government has been a major, general remedy to accomplish this goal. People in these three countries no longer need to know how the government is structured to be able to find government information or apply for public services. Additionally, all three countries set targets to have full key public services electronically available in the next couple of years.
In addition, the e-government of the future in all three countries is being designed to be cost efficient and to use high standards for security and authentication. Technical standardization together with the development of common standards are important means to accomplish these shared objectives. In all three countries, public key technology (for example: digital signatures) is used or will be used in the short term to establish secure and effective communication with or within government.

However, all three countries acknowledge that the future design of the new e-government is still vague. Governments, but also other parties in society, are perceived to need to broadly experiment with new ICTs to learn and develop capabilities for the innovation of government activities. With that, a ‘creative destruction’ approach toward current policy making traditions, regulation, and working processes is observed to be required. Besides, as the Australian federal government shows, the national government may choose to provide a leadership role in the online transition of activities in its society, with the aim to stimulate public awareness of new opportunities through ICT.

The vague borders of a potential future e-government design are further unclear at the present because of specific cultural barriers within the countries under study. The restricted authoritative powers of the American federal government resulting in a limited policy implementation of e-government together with indispensable partners, and the strong censorship of the Singapore national government toward ‘information pollution’ leading towards restricted online information and service provision, are both good examples of the culturally dependent developments of e-government in each country. But also the resistance of American citizens against online voting opportunities can be seen as an example here. Besides, differences in national government traditions with regard to the reporting of effects of policy programs may further muddy the view on potential characteristics of an e-government model on the short term.

Therefore, we may conclude for the moment that although a number of similarities undeniably exist between e-government developments in the three countries under study, it still seems to be too early to acknowledge the presence of a single, worldwide model of e-government. However, if we take into account the speed of Internet developments, we need not be surprised to find such an e-government model sooner than expected.

Notes

1. The author would like to cordially thank Vivian Carter for her assistance in checking the English and Professor Corien Prins for her invaluable comments.
11. The National University of Singapore was among the first in Asia to introduce WAIS and Gopher servers in 1992 and the World Wide Web in 1993 (Wong, 1997, p. 45).
21. Ibid.
24. Ibid.

References