THE CHANGING LANDSCAPE OF THE U.S. FEDERAL GOVERNMENT: ELECTRONIC DELIVERY OF INFORMATION AND SERVICES

Patricia Diamond Fletcher

Abstract

This paper will examine the current condition of electronic government (e-gov) in the U.S. Federal government. A brief examination of the legislative framework for e-gov will be presented. The current major initiatives at the Federal level of government will be examined with an emphasis on the nascent creation of best practices in electronic government.

Izvleček

V članku obravnavamo sedanje stanje v elektronski upravi ameriške federalne vlade. Predstavljamo kratek pregled zakonodaje, ki se nanaša na e-upravo. Opisujemo tudi pomembnejše spodbude na federalni ravni s poudarkom na porajajoče se uveljavljanje učinkovitejših postopkov v elektronski upravi.

▪▪▪

The Legislative Framework for Electronic Government in the United States

The United States Federal government is the largest information collector, creator, disseminator, and repository in the world. This underscores the classic comment made by Harlan Cleveland (1986) that in essence "government is information." The importance of information and information management to the Federal government has been recognized by many scholars, authenticated in their research (Dawes, et al, 1999; Fletcher, et al, 1993; Fletcher and Westerback, 2000; Hernon, et al,1997; Sprehe, 1987). The value of information to government has recently skyrocketed, however, as government becomes "electronic" and government information and services, ubiquitous.

A complete review of all relevant Federal policy is beyond the bounds of this paper. A number of such comprehensive papers already exist, and for the purposes of this paper, only the critical recent legislation will be noted. As indicated above, the U.S. Federal government has a lengthy and rich history of legislative attention to government information and personal information freedoms and this focus on information policies continues into the present. The onset of computers and information technology, and the Internet as a mass communication media, has only increased the focus on and the importance of an informed and concentrated policy approach to information. Information creation, maintenance, access, disposal, security, and privacy frame and guide the information policy arena today.

Paperwork Reduction Act of 1995

The Paperwork Reduction Act of 1995 (PRA) (Public Law 104-13)is a lengthy and wide-ranging law, first enacted in 1980. It was revised in 1986 with some changes, and then had a major revision in 1995. The PRA was enacted to reduce the paperwork burden on private citizens and businesses that interact with the government. It emphasizes the effective and efficient use of IT to achieve paperwork reduction. The second goal of the PRA is to create a government information management structure that recognizes the value of information to government and manages it in a strategic manner, consistent with Federal agency missions and goals. In its latest version, attention is given to the management and use of all forms of records and information, paper and electronic, to computer security, information privacy and information access, systems standards, and agency wide and government wide strategic information planning. The Office of Management and Budget guidance to Federal agencies for compliance with the PRA is given in OMB Circular A-130.

Government Paperwork Elimination Act of 1998

The Government Paperwork Elimination Act of 1998 (P.L. 105-277, Title XVII) was authorized with a minimum of attention and fuss, yet it has the potential to be one of the most influential pieces of legislation pertaining to the management and use of information

technology—and to the creation of an electronic government. Once it is fully implemented, GPEA promises to create government processes that are more externally focused and citizen and business-centric. It sets up the conditions for a process and performance oriented Federal government. With the passing of GPEA, there is a formal recognition that government is and will continue to develop its electronic information presence.

The Clinger-Cohen Act of 1996.

Division D of the Department of Defense authorization is titled the Information Management and Technology Reform Act of 1996, later renamed Clinger-Cohen after the bill's congressional supporters. Clinger-Cohen makes specific the development of information technology acquisition and investment practices and creates a top-level focus on Federal agency information management through the requirement for a Chief Information Officer, which is a direct report to the agency head. This act was supplemented by Executive Order 13011, Federal Information Technology Management. E.O. 13011 served to bolster the CIO structure with the creation of a Federal CIO Council, charged with creating cross-agency information platforms, maximizing the return and the reach of information technology across the Federal government. As will be mentioned later in this paper, the CIO Council has taken on a key role in creating and enabling electronic government processes.

Privacy Act of 1974

The Privacy Act of 1974 (88 Stat. 1896; 5 U.S.C.552a) was enacted by Congress to legislatively protect personally identifiable information created and maintained by Federal agencies. It created the right of an individual U.S. citizen, or lawfully alien, to access personal information about him or herself that is in most Federal government records. There are exclusions to this Act for information that is deemed sensitive or critical to U.S. national security. The Privacy Act also affirms the principles for fair information practices, principles generally accepted in the United States and Europe for access to, disclosure of, and accuracy of personally identifiable information.

Freedom of Information Act of 1966

The Freedom of Information Act (80 Stat. 250; 5 U.S.C. 552) was enacted by Congress in 1966 to create a more effective process for the public to obtain access to Federal government records. The latest amendment to this act occurred in 1996 with the major modifications being the Electronic Freedom of Information Act that affirmed the applicability of the Act to records in all formats and media, including electronic. Federal agencies are required under the Act to disclose records requested in writing by any person. Federal agencies may withhold information if it falls within one of the nine exemptions and three exclusions contained in the statute. This Act applies only to federal agencies and does not create a right of access to records held by Congress, the courts, or by state or local government agencies.

The Computer Security Act of 1987.

The Computer Security Act (101 Stat. 1724) requires that Federal agencies develop comprehensive security plans for all systems that contain sensitive information. It further states that the National Institute of Standards and Technology in the Department of Commerce, set the security standards to be applied to all systems containing such sensitive information, excepting systems that contain national security information, intelligence, crypto logic or military information which are to be kept secret for purposed of national defense and national policy.

These are the major legislative tools, which relate to electronic government at U.S. Federal agencies. At a minimum, they set up the requirements for information access, use, maintenance, security and privacy. Other policy tools, such as the Computer Matching and Privacy Protection Act of 1988, Presidential Decision Directive 63 on Critical Infrastructure Protection, the Children's Online Privacy Protection Act of 1998, and the Office of Management and Budget Memo on Federal Web Site Privacy (June 2, 1999) flesh out some of the thorny issues which arise when using computer technology and the Internet to provide basic government information and services. This is a challenging area in the United States, where the tension to balance the "right to information privacy" with the "right to access information" continues to do battle.

A Look at the Internet

A recent report from the U.S. Department of Commerce notes that the digital economy is no longer emerging in the United States–it is here. This report states that in 1994 three million people used the Internet; in 2000 that number is three hundred million. The report further notes that there are more than one billion web pages on the Internet and that approximately three million new web pages are added daily. One survey reports (Domain names, 2001) that there are currently 36,148,625 domains registered across the "com", "net", "org", and "gov" sites.

This rapid diffusion of both a new technology and a new social model is very evident in the United States of America where we have seen the Internet become the fastest growing electronic technology in world history. In the U.S., after electricity became widely available, 46 years passed before 30 percent of American homes were wired for electrical service. It took the Internet only seven years to have a household reach of 30 percent (Pew Charitable Trusts, 2001).

A series of reports issued by the Department of Commerce show a continuing diffusion of computer and Internet technology throughout the U.S., be it via business access, access in schools and libraries, or personal access at home (2000). The most recent report notes that:

- The share of households with Internet access soared by 58%, rising from 26.2% in December 1998 to 41.5% in August 2000.
- More than half of all households (51.0%) have computers, up from 42.1% in December 1998.
- There were 116.5 million Americans online at some location in August 2000, 31.9 million more than there were only 20 months earlier.
- The share of individuals using the Internet rose by 35.8%, from 32.7% in December 1998 to 44.4% in August 2000. If growth continues at that rate, more than half of all Americans will be using the Internet by the middle of 2001.

http://www.ntia.doc.gov/ntiahome/digitaldivide/execsumfttn00.htm

One of the first large-scale surveys of citizen participation in electronic government exchanges was conducted by the Momentum Research Group of Cunningham Communications (July 26, 2000). They found that 65 percent of adults had conducted at least one electronic transaction with a government agency. When asked about some of the more citizen-to-government routine transactions, 47 percent of the respondents expressed an interest in renewing their driver's licenses over the Internet; 38 percent wanted the option to vote over the Internet for major elections; and 36 percent wanted to be able to have the option of conducting all interactions with government (at any level) electronically. An interesting and unexpected finding of this survey was that 71 percent of citizens who use the Internet were willing to pay a convenience fee for the ability to transact with the government over the Internet.

While immensely exciting in its potential, this widespread diffusion of the Internet creates new vulnerabilities and policy issues. Concerns for information privacy have skyrocketed in the past decade. Vulnerabilities in networked information systems have given rise to sharp examinations of computer security and the protection of critical infrastructure. The ongoing role of the government to make its information available to its citizens has been stretched and challenged with the advent of the Internet. Access is more than posting to a web site—indexing and retrieval challenges are yet to be resolved satisfactorily. And there is continuing evidence of a "digital divide" in the United States; the existence of a group of computer/information "haves" and a group of "have nots" which is in need of policy intervention. The 2000 report on the digital divide pointed out that while some progress had been made in closing the gap, there are still some groups where the divide has not been lessened, and in some cases, increased. (Department of Commerce, 2000). There continue to be inequities based on race and ethnicity, as well as for Americans with disabilities.

What emerges from this brief overview of Internet use in the United States is that of a country that is rapidly depending on computer and Internet technology for a range of business and personal uses. There are not only economies of scale to be reaped by business use of the Internet, there are personal and social benefits that are reflected in the rapid growth in home use of the Internet. In the U.S. we have a quickly diffusing set of network technologies and corresponding changes in business and social practices. This creates an environment that is more than ready for a robust electronic government.

Government's Evolving Response

Information technology has long been regarded as a "big ticket" item in federal government. IT accounts for an annual obligation of approximately $38 billion—not a trivial amount (GAO/T-OCG-00-9, 2000). Thus, it is an expenditure that has come under close scrutiny, with a repeated litany from Congress calling on the Federal agencies to maximize the value proposition, increase productive, and provide enhanced levels of service and information dissemination to the public with their information technology infrastructures.

The role of government in creating and maintaining an informed citizenry is potentially enhanced with the emergence of electronic government. A clear strategy and vision of how to achieve these goals for information and service delivery has not yet been well articulated. What we are seeing at this time is an ad hoc response to the development of new information technologies, most notably network technology, and the expectation of more "customer-oriented" focus by its citizens. This focus on "customers" or citizens, has been nurtured by the private sector's success in its rapid creation of electronic commerce applications. This has led to the development and widespread use

of a 24/7 business model; a model that lets customers interface with companies any time, any day of the week, anywhere; in both physical and virtual space. This business model also includes a creation of value for customers that is information-based: infinitely customizable service and products. The use of persistent "cookies" and other information collection practices give businesses a wealth of information on consumer behavior and preferences. The collection of these data on e-commerce web sites enables to business turn this information into the ultimate in customer service, individually focused, always available. While this appears to be a useful model for the private sector, it may not be in the best interest of the citizenry. While Americans are demanding a very high and ubiquitous level of service from all organizations, government must tread much more lightly in engaging in some of these Web-enabled information practices. As noted earlier in this paper, the U.S. citizen has an inherent belief in the right to information privacy. There is also the concern for the protection of their personally identifiable information from malicious use, theft, and alternation. There are also concerns about what is inherently governmental, and what should be off-loaded to the private sector to enhance the national economy.

The above noted challenges and opportunities have created a unique opportunity for government to change its interface with the citizenry. And at the Federal level, there have already been numerous instances of electronic delivery of services, information, and the enabling of business transactions, e.g., online licensing, online tax payments, online compensation systems and electronic transfer of benefits. The U.S. Federal CIO Council reported that in the year 2000 there were more than 1200 electronic initiatives underway in the Federal government. Two of these initiatives will be reported on in this paper. Funding from the National Science Foundation's Digital Government program supported a recent study of characteristics of electronic government partnerships and outcomes. This multi-national study examined e-gov projects at all levels of U.S. government, as well as projects in Canada, Belgium, Germany and Brazil. The author conducted case study research at two Federal agencies and a brief summary of the finding is presented.

FirstGov

FirstGov was launched in September of 2000 and it is the only official U.S. government Web portal and is described as a single, trusted point-of-service for U.S. citizens and businesses to gain entry to federal services and information resources. If successful, this portal will provide a seamless entry to the estimated fifty to one hundred million federal agency web pages currently on the Internet. It will centralize the procurement process for doing business with the Federal government. It will centralize the federal grant application and grant award process. The concept of a Federal portal was first mentioned on June 24, 2000 when U.S. President Bill Clinton made the first Internet address to the nation. He announced a bold initiative for the U.S. federal government; the deployment of **firstgov.gov**, a government-wide portal to be operational in "ninety days or less." The portal was up and running by its deadline in September of 2000.

FirstGov is a unique example of a public-private partnership among the U.S. General Services Administration, the Federal CIO Council, National Partnership for Reinventing Government, the Government Information Technology Services Board, private sector information industry companies, and the Fed-Search Foundation, which, donated the use of their search engine to this project for a period of two years. This attention from the Executive Office of the President was one of the critical success factors which enabled to portal to be "open for business" in such a short period of time.

Other significant and critical variables for the project's success included the Presidential Memo of December 17, 1999: Electronic Government; the passage of the Government Paperwork Elimination Act of 1998 (P.L. No. 105-277); and the 90 day time frame given to launch the portal. These factors created the top level support, the legislative framework, and the sense of commitment and urgency to have a successful launch date.

Today, FirstGov provides informational and transactional government-to-citizen, government-to-business and government-to-government electronic services. It covers all three branches of government; executive, judicial and legislative. Its vision, "Our work transcends the traditional boundaries of government and our vision is global –connecting the world to all U.S. Government information and services" is being carried on with the addition of state and local web pages along with some pages from foreign governments to its vast directory of government information. The portal also creates and maintains a number of content-specific portals geared to special audience needs, such as students.gov, seniors.gov, workers.gov, science.gov, and consumers.gov. These specialty portals are consistent with the topic or needs-oriented approach to government that FirstGov represents.

The future for this government wide portal looks good at this time. The website has won numerous awards and has strong visibility and usage. It is included in the President's 2002 budget so, in the short term, it will continue to have the wherewithal to operate.

The Internal Revenue Service's eFile

The desire to connect the taxpaying public to an easy, fast, and paperless tax return process has long been a goal of Congress and the Internal Revenue Service (IRS). The eFile, a cooperative venture among the IRS, the public, certified public accountants, taxpayer software vendors, and other tax professionals, is one of the more public and wide-ranging instantiations of the desire to reduce the tax process burden to all parties. The vision for eFile is "To revolutionize how taxpayers transact and communicate with the IRS." The program does this in a variety of ways, using the Internet, computer software and telephone technologies as interaction and filing media.

Factors that were critical to the development and the success of this project include the:

- IRS Commissioner Charles Rossotti,
- Strong leadership of the Electronic Tax Administration Director,
- Strategic planning focus of the agency,
- Citizen access priority,
- IRS Restructuring and Reform Act (RRA) of 1998
  - Promotion of electronic filing (sec. 2001c)
  - Forms availability via Internet (sec. 2003d),
- Government Paperwork Elimination Act,
- Ability to stimulate "out-of-the-box" thinking,
- Tax expertise of partners,
- Direct marketing campaign of eFile to the general public,
- Electronic Tax Administration Advisory Commission, and
- Internet technology.

According to a June, 2000 ETAAC report to Congress:

The website itself, www.irs.gov, has achieved a remarkable visibility in a short period of time. Date from the Internal Revenue Services indicates that there were more than 1.5 billion hits to the website from January through April 16, 2001, which represents a 57 percent increase in usage from the same time period in 2000. The visitors to the website averaged eleven minutes per visit, with most of them going to the page for electronic tax filing. The number of documents and forms that were downloaded from the web site was 103 million for January and February 2001; a two-fold in crease from the same time period in 2000.

The IRS also experienced a large growth in electronic filing in 2000, with a 20.5 percent increase in e-filed returns over the preceding year. Other aspects of the electronic filing program also demonstrated improved service and information delivery improvement in 2000.

A goal of the Tax Restructuring and Reform Act of 1998 was for the IRS to achieve 100 percent electronic filing of all returns prepared on computer by both tax payers and tax professionals alike by 2003. While progress is being made, the 2000 Annual Report to Congress by the ETAAC believes that much work remains to be done to if the IRS is to be successful in even approaching this goal (http://www.cerca.org/reports/etaac00.pdf). The ETAAC report also noted that they were doubtful of the ability of the IRS to achieve its 2007 goal of 80 percent electronic filing of all tax returns. But this does not deter the IRS from seeing this as a successful venture to date, with multiple public-private partnerships being established to continue to diffuse this process through the tax filing and tax preparation customers.

Looking Ahead

The above section makes note of just a few Internet-enabled examples of electronic government that are already being used in the Federal government. A strong momentum exists to achieve even greater electronic interaction between the government and its public. The Budget Blueprint of President George W. Bush has a heartening focus on the continuation of developing and using the Internet to create a Federal government that is "citizen-centric." Under the "Government Reform" section of the President's plan, are goals to use information technology to decrease the excessive hierarchy and red tape inherent in governmental processes, create a citizen-centric government over the Internet, and to develop an e-government fund to insure that these goals are met.

In October of 2001 the Office of Management and Budget released the report of the "Quicksilver" Task Force on electronic government initiatives. These initiatives are to receive special attention and support in the coming eighteen to twenty-four months. The task force is a government wide inter-agency group composed of 70 leaders from 30 Federal agencies convened in the summer of 2001 to explore cross-cutting electronic government programs. The list of their 23 projects was developed to enhance and facilitate electronic services at multiple government agencies. They were also created with an eye to focus the e-gov efforts in four critical segments: government to citizen, government to business, government to government, and internal effectiveness and efficiency. These projects also have a direct correspondence to President Bush's management agenda, a strategy to move to a customer-centric government.

Some examples of approved projects include the:

Education Department's Electronic Student Loan for online filing (government-to-citizen),

Justice Department's Wireless Network project (government-to-government),

Department of Transportation's Online Rule-making Management system (government-to-business), and

Office of Personnel Management's e-Training, Recruitment One Stop and Enterprise Human Resource Integration including e-travel (effectiveness and efficiency).

The Federal government's Chief Information Officer Council also reflects a strong emphasis on electronic government. Their 2002 Strategic Plan (www.cio.gov) has a vision to create a "better government through better use of information, people, processes and technology." To this end their first strategic goal is focused on connecting citizens to their government though an e-government strategy to improve access to government information and services, and to improve the quality of government information and services using the Internet. One of the objectives under this goal it so continue with the development of FirstGov, making it a seamless tool for citizens and business to use that will cut across all government branches (executive, judicial, and legislative) and all government levels (Federal, state, and local). The CIO Council is also in the process of reorganizing its structure to better facilitate their commitment to an electronic government, which will be vital and coherent across all Federal agencies.

These examples show the commitment of the U.S. Federal government to create electronic service provision, information delivery, and transaction capabilities to all segments of their public. What is missing however, is a unified strategy to give this a coherent and rational face. The proliferation of a plethora of e-gov projects without adequate strategic guidance can create more system redundancy and confusion over how to find information and services, rather than streamline such processes.

Conclusion

This paper has examined the policy framework for an electronic government in the United States of America. It has also presented some of the current and pending e-gov initiatives that are underway at the Federal level of government. While much progress has been made, there are many challenges remaining to the success of such a government model. Information issues such as privacy, security, access, and dissemination remain critical. The policy framework will continue to be glossed to accommodate the Constitutional rights of citizens while maintaining adequate informational and physical security of government information systems. The lack of a government wide electronic government strategy is also in need of attention. The Federal government suffers from an abundance of redundant, expensive, old information platforms, developed to meet very parochial and stovepipe needs of agencies. These systems are characterized by their inability to cross inter and intra-organizational boundaries, thus limiting their effectives, range and reach. These systems were created without any articulation of a Federal agency strategic information plan, let alone a government wide strategic information plan. The U.S. has the opportunity to redress this now, if it can develop and sustain a government wide strategic approach to electronic information and service delivery.

A slow and steady development of the electronic government infrastructure, however, is probably still a good practice to a government that is accountable to a tax-paying electorate. While the excitement and revolutionary outcomes of electronic commerce have a certain mass appeal, citizens want their government to be reasoned and accountable in the conduct of its business. The sheer size of the U.S. government, coupled with its being the largest creator of information in the world, also serves to slow down the creation of an electronic government.

A final and important issue here is that in the United States, we have been a nation where government touches us most where we live, in towns and villages, in major metropolitan areas, counties, school districts, libraries, forest preserves, public highways, and the like. Do we really want a government that is primarily accessible via the electronic means? While the ideal of one-stop-24 hour, seven day a week-government is enticing, it will be important to sustain the community aspect of our democratic society.

Horton, 1979; McDonough, 1988; Sprehe, 1987

Bibliography

Cleveland, H.
"Government is Information (But Not Vice Versa)," Public Administration Review, 46 (1986): 605-607.

Daley, W.M.
Digital Economy 2000, Office of Policy Development; U.S. Department of Commerce Economics and Statistics Administration: Washington, DC, 2000: 1-71.

Dawes, S.S., Bloniarz, P. A., Kelly, K. L., and Fletcher, P. D. (March, 1999).
Some Assembly Required: Building a Digital Government for the 21st Century. Albany, NY : Center for Technology in Government.

Domain Names.
http://www.domainstats.com/ (accessed on the World Wide Web, November 1, 2001).

Falling through the Net:
Toward digital inclusion. U.S. Department of Commerce Economics and Statistics Administration. National Telecommunications and Information Administration
http://www.ntia.doc.gov/ntiahome/fttn00/contents00.html
(accessed on the World Wide Web, November 5, 2001).

Fletcher, P.T., Bretschneider, S. I., Marchand, D.A. (1992) Managing Information Technology: Transforming County Governments in the 1990s. Syracuse, NY : Syracuse University.

Fletcher, P.D., and Westerback, L. (1999).
Federal Information Policy: Management to Measure-ment. The Journal of the American Society for Information Science, Special Issue on the National Information Infrastructure. 50(4). pp. 299-304.

Hernon, P.; McClure, C.R.; and Relyea, H.C., Eds. (1996). Federal Information Policies in the 1990s: Views and Perspectives. Ablex Publishing Corporation: Norwood, New Jersey.

The Momentum Group. Benchmarking the eGovernment Revolution: Year 2000 Report on Citizens and Business Demand; July 26, 2000.
http://www.egovernmentreport.com
(accessed on the World Wide Web, July 28, 2000).

The Pew Charitable Trusts. Society and the Internet.
http://www.pewtrusts.com/ideas/index.cfm?issue=10
(accessed on the World Wide Web, November 5, 2001)

"President Clinton Launches FirstGov:
A Single Easy-to-Use Website for Government Services and Information".
<http://whitehouse.gov/WH/html Fri_Sep_22_124445_2000.html> (accessed on the World Wide Web, September 22, 2000).

Relyea, Harold C. (May 7, 2001).
Electronic Government: A Concpetual Overview. Washington, DC: Congressional Research Service.

Remarks by the President in the First Internet Webcast; June 24, 2000.
<http://www.whitehouse.gov/WH/new/html/inter-net2000-02-24-text.html> (accessed on the World Wide Web October 10, 2000).

Sprehe, J. T. (1987).
Developing Federal Information Resources Manage-ment Policy: Issues and Impact for Information Managers," Information Management Review, Vol. 2, pp. 33-41.

Webcast of November 15, 2000 CIO Council Meeting.
<http://www.cio.gov/text/whatsnew.htm>
(accessed on the World Wide Web, November 20, 2000).

♦

Patricia Diamond Fletcher is associate professor in the Department of Information Systems, UMBC, University of Maryland, Baltimore County. She has published extensively in the area of government information policy and electronic government. She is currently studying new models of multi-partner collaboration for electronic government projects, a multi-national project funded by the National Science Foundation under the direction of the Center for Technology in Government. Fletcher is on sabbatical leave from UMBC to conduct research at the US General Accounting Office for the 2001 academic year. She is working with the IT Policy Team and involved in studies initiated by Congress on information privacy and security act compliance and an evaluation of the effectiveness of the Paperwork Reduction Act of 1995 in Federal agencies. Fletcher received her MLS and PhD from the School of Information Studies at Syracuse University.

♦