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FIRSTGOV.GOV: IS IT A GOOD IDEA?

HEARING

BEFORE THE

SUBCOMMITTEE ON GOVERNMENT MANAGEMENT, INFORMATION, AND TECHNOLOGY

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

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FIRSTGOV.GOV: IS IT A GOOD IDEA?

MONDAY, OCTOBER 2, 2000

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON GOVERNMENT MANAGEMENT,
INFORMATION, AND TECHNOLOGY,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m., in room 2154, Rayburn House Office Building, Hon. Stephen Horn (chairman of the subcommittee) presiding.

Present: Representatives Horn and Turner.

Staff present: J. Russell George, staff director/chief counsel; Randy Kaplan, counsel; Ben Ritt, professional staff member; Bonnie Heald, director of communications/professional staff member; Bryan Sisk, clerk; Elizabeth Seong, staff assistant; George Fraser, Rachael Reddick, and Trevor Pedigo, interns; Trey Henderson, minority counsel; Jean Gosa, minority clerk; and Michelle Ash, minority professional staff member.

Mr. HORN. A quorum being present, this hearing of the Subcommittee on Government Management, Information, and Technology will come to order.

On Friday, September 22nd, the President unveiled FirstGov, a centralized Web site that allows anyone with a computer and modem to one-stop shop for information on the government's 27 million Web pages.

By accessing FirstGov located at www.FirstGov.gov, computer users can locate a wealth of government information and services. A single search can produce information on subjects from Social Security benefits to the latest advances in health care. Businesses can find the government's most recent procurement opportunities, and prospective applicants can search for Federal grants. By the end of this year, nearly 40 million Americans will communicate with the government electronically. That demand will undoubtedly swell as even more people join the information age.

FirstGov is an important step in making government information and services available to the public 7 days a week, 24 hours a day. FirstGov and electronic government in general, offer the potential to revolutionize the way citizens and businesses interact with their government. The benefits of this instant communication are plentiful, but the challenges are equally profound.

To be successful, government information must be current, well-organized and readily accessible. Citizens and businesses should expect government Web sites to offer the same quality and service found on many business Web sites. They must be confident that

their on-line communications are secure and that personal information is fully protected. The government's electronic infrastructure must be planned and managed carefully to avoid risking the loss of billions of taxpayer dollars.

Equally important, we must bridge the digital divide so that all citizens have access to this new electronic environment.

The FirstGov Web site uses technology developed by Dr. Eric Brewer, who is co-founder of Inktomi—and I don't know how fast I am to say that, or do I spell out each syllable? Which is it?

Mr. BREWER. You got it right. Inktomi.

Mr. HORN. Inktomi Corp., and a professor of computer science at the University of California, Berkeley.

Dr. Brewer, who is with us today, has offered his search technology to the FirstGov project at no cost for 2 years.

Dr. Brewer, I understand you flew all night from Japan to be with us, and I welcome you and thank you. I am looking forward to learning more about this new project and its potential for providing citizens with a greater opportunity to communicate with their government.

I welcome all of our witnesses today, look forward to your testimony; and I now yield time to the ranking member, the gentleman from Texas, Mr. Turner, for an opening statement.

Mr. TURNER. Thank you, Mr. Chairman.

FirstGov is the first-ever government Web site to provide the public with easy, one-stop access to all on-line Federal Government resources. This site will bring government closer to the people, expand the reach of our democracy and make government more consumer friendly.

Launched on September 22, 2000, FirstGov allows users to browse a wealth of information, everything from researching at the Library of Congress to tracking a NASA mission. It also enables users to conduct important business on-line, such as applying for student loans, tracking Social Security benefits, comparing Medicare options and administering government grants and contracts. It is expected that this monumental breakthrough in one-stop shopping for government services will help Americans across the country and around the world find information and resources quickly and easily.

As an advocate of e-government, I commend the administration for making this effort; and I am pleased to see FirstGov.gov up and running. The Internet offers us unparalleled opportunities to literally put government at the fingertips of the citizens. While the private sector has been quick to capitalize on the new opportunities created by the digital revolution, it is widely acknowledged that the Federal Government is behind the curve.

Projects like FirstGov.gov show that we are making an effort to head in the right direction. Hopefully, this is just the first of many steps the Federal Government will be making in order to ensure that 1 day "dot gov" is as commonplace as "dot com."

Again, I commend the chairman on holding the hearing to bring this important step forward to the attention of the American people, and I welcome each of our witnesses who have come here this morning.

Thank you, Mr. Chairman.

Mr. HORN. Thank you very much.

The tradition of the committee on Government Reform and its subcommittees is to swear all witnesses as to the knowledge they give us. So if you will stand and raise your right hands.

[Witnesses sworn.]

Mr. HORN. The clerk will note that all the witnesses have affirmed.

We will now start with the Honorable Sally Katzen, Deputy Director for Management, Office of Management and Budget.

STATEMENT OF SALLY KATZEN, DEPUTY DIRECTOR FOR MANAGEMENT, OFFICE OF MANAGEMENT AND BUDGET

Ms. KATZEN. Mr. Chairman, Mr. Turner, I am delighted to be here again.

FirstGov, the Federal Government's new and most comprehensive Web portal, is a timely and important topic for the government and the Nation; and we are glad that you convened this hearing to explore its great potential so soon after it was launched.

As the chairman noted, FirstGov is a piece of a much larger effort of this administration to bring the American people electronic government. Much of my written testimony is devoted to the administration's work in this area, but in the interest of time, let me move to the specific subject of this hearing.

Last December, the President issued a memorandum on electronic government. It called for the establishment of a one-stop gateway to government information available on the Internet, organized by the type of service or information that people are seeking rather than by the agency. That is FirstGov.

But the roots of FirstGov predate that memo. For several years now, a dedicated team at GSA has been doing the spade work on what was then known as WebGov. The President's memo accelerated the process. In the very early spring, the President's Management Council gave it enthusiastic support.

Shortly thereafter, we were approached by Internet entrepreneur Eric Brewer with the offer of a powerful search engine and data base that he would develop. That offer was a major catalyst in bringing all government information together in a way that the American people can find quickly and easily. We chose the name FirstGov to signify the citizens' first click to electronic government.

In June 2000, the President announced FirstGov in his first-ever Webcast address to the Nation, challenging government and industry to finish creating it in 90 days. Exactly 90 days later, some would say in Internet time, the President announced the launch of the site.

The site, located at www.FirstGov.gov, provides a single on-line portal that connects Americans to one of the largest and most useful collections of Web pages in the world. It allows users to search all 27 million Federal agency Web pages at one time, and it has plenty of room to grow because it can search half a billion documents in less than a quarter of a second and handle millions of searches a day. This is somewhat mind-boggling but true.

Both the Director of OMB and I have given special attention to this project, and I sit on the governing board of FirstGov. GSA Ad-

ministrator Dave Barram will give more details on some of the arrangements.

The initial response to FirstGov has been largely favorable. Initial estimates show that during the first 4 days, about a quarter of a million people visited the site. More interesting, Web traffic at various agency sites increased with the launch of FirstGov. The Department of Transportation reported a large increase and also cross-agency sites, including disability.gov, reported a nearly threefold increase.

In addition, the on-line customer feedback we received is widely supportive. Of roughly 700 messages received by FirstGov in its first week, the vast majority were both supportive of the site and excited about the opportunity to make the site better through their comments.

Finally, to demonstrate the support for FirstGov among IT professionals, there was a conference last week of State CIOs, Chief Information Officers, and the States said they thought FirstGov was a tremendous advance and asked how they could work with us to become a part of it.

FirstGov is, in my mind, a revolutionary step in the way this government provides information and services. A visitor need not know what agency provides student loans to get information on student loans. The search engine as well as the topic directory can provide this. And FirstGov partners may offer yet a third way to access the information in a way that fits the user's needs.

Moreover, the site will get better over time. The search engine will learn which pages are the most useful to the citizens and display them more readily. The topic index will grow and encompass those sites most commonly looked for and accessed by the public. Ultimately, as agencies put more information on-line, FirstGov will be the catalyst for additional agency and cross-agency portals that continue to break down the existing stovepipes and lead to a real transformation in the way the government delivers information and services.

Most importantly, citizen feedback will lead our efforts to make our information and services more available on-line. The public will point our way, and through their direction we will give them a comprehensive and responsive electronic government that expands opportunities for their participation in our democracy.

Thank you very much for the opportunity to talk about FirstGov and for your support in this area. I look forward to answering your questions.

[The prepared statement of Ms. Katzen follows:]

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

DEPUTY DIRECTOR
FOR MANAGEMENT

STATEMENT OF THE HONORABLE SALLY KATZEN
DEPUTY DIRECTOR FOR MANAGEMENT
OFFICE OF MANAGEMENT AND BUDGET
BEFORE THE
COMMITTEE ON GOVERNMENT REFORM
SUBCOMMITTEE ON GOVERNMENT MANAGEMENT,
INFORMATION, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES
October 2, 2000

Mr. Chairman and Members of the Subcommittee.

Thank you for inviting me here today to discuss the Federal Government's new and most comprehensive web portal – FirstGov. We appreciate your continued strong support of agency electronic government efforts. In addition, we welcome your interest in FirstGov and the opportunity to describe what we are trying to do and how we are progressing on electronic government.

E-Government

Before discussing the launch of FirstGov, it may be helpful to place this project in the context of the Administration's ongoing efforts in bringing electronic government to the American people. E-government involves access to government information and services 24 hours a day, 7 days a week, in a way that is focused on the needs of our citizens and businesses. E-Government relies heavily on agency use of the Internet and other emerging technologies to receive and deliver information and services easily, quickly, efficiently, and inexpensively.

Indeed, the Administration has recognized the potential of the Internet from the earliest days. To plan for the use of information technology throughout the government, the Administration established the Information Infrastructure Task Force (IITF) in 1993 to coordinate the Administration's efforts to improve service delivery to the public. I chaired the committee on information policy of the IITF. Much of that work formed the basis for our e-government work now. In July 1997, we published our principles for e-commerce, which relied heavily on industry self-regulation. Adherence to these principles has allowed the Internet to flourish in a manner that is generally free from government restrictions.

To accelerate and focus the Federal government's work, last December the President issued a Memorandum to the Heads of Executive Departments and Agencies regarding Electronic Government. The Memorandum calls for a number of actions, such as making federal forms and transactions available online, ensuring privacy, and providing access for the disabled. Significantly, the first item in this Directive calls for the establishment of a "one-stop" gateway to

As DDM, I chair the President's Management Council (PMC), which is comprised of the Chief Operating Officers from the major Departments and agencies. The PMC adopted "Promoting Electronic Government" as one of its three goals for the year 2000 and it has adopted priorities that build upon the President's Memorandum. These include a one stop gateway for government information and services, the development of customer-centric web sites for specific purposes like exports and procurement, and the adoption of at least one electronic government process in every agency.

The Administration's Record

This Administration is making significant strides in transforming our government to an Electronic Government, using the President's directive and the PMC goals as a framework. Through these efforts, citizens can avoid traveling to government offices, waiting in line, or mailing paper forms. In fact, every Cabinet department is online and using web sites to make more information and services available to the American people at the click of a mouse. There are currently some 20,000 government web sites available for use. Citizens are using web sites to file their taxes with the IRS (*www.irs.gov*), apply for student loans (*www.students.gov*), find new jobs (*www.workers.gov*), and to compare their Medicare options (*www.medicare.gov*). They're tapping into the latest health research (*www.health.gov*), using statistics from across the government (*www.fedstats.gov*), browsing the vast collection of the Library of Congress (*www.loc.gov*), and following along with NASA's missions in outer space (*www.nasa.gov*). According to a recent Andersen Consulting study, the United States is the leader in providing government information electronically.

A key component of a successful transition to electronic government is protecting the privacy of personal information. Last spring, in response to questions and concerns raised by the public about federal agency use of personal information collected online, OMB Director Jack Lew issued Memorandum M-99-18 – *Privacy Policies on Federal Web Sites*. In that memorandum, OMB directed federal agencies to post privacy policies on key web pages contained in agency web sites. The executive branch agencies implemented the OMB memorandum with great success, with a virtually perfect record at agency principal web sites and at major points of entry. More recently, Director Lew issued Memorandum M-00-18 – *Privacy Policies and Data Collection on Federal Web Sites,* prohibiting the tracking of user behavior across government web sites and over time. FirstGov complies with both of these memoranda.

As the President directed in his Executive Memoranda commemorating the 10th anniversary of the Americans with Disabilities Act on July 26th of this year, agencies have been asked to make all programs offered on their Internet and Intranet sites accessible to people with disabilities by July 27, 2001. I am pleased to report that the FirstGov site has met this deadline almost 9 months early. FirstGov is an important tool for improving the accessibility of electronic benefits and services to people with disabilities.

A recent Hart-Teeter study conducted by the Council for Excellence in Government demonstrates that E-gov and efforts like FirstGov are what the public wants. The study found that Americans overwhelmingly support e-Government, viewing it as a way to get more involved, be better informed and hold government more accountable to its citizens. According to

the study, 66% of the public has visited Government web sites with 71% rating Government sites excellent or good. A majority of Americans hold favorable views on *every* e-gov function tested, giving the highest marks to a broad selection of sites including those providing medical information, Social Security information, and on-line student loan application. In addition, as many of our younger citizens start interacting with the government they will only demand more access to information and services on-line.

FirstGov.Gov

As I mentioned earlier, the momentum for FirstGov was generated by the President's Directive on Electronic Government from last December, which gave the highest priority to building online information organized by topic not agency. The effort was referred to as WebGov, managed by a dedicated team at GSA who had been doing the spadework on the project for several years. In the very early spring, we took this effort to the President's Management Council and it was given enthusiastic support. Shortly thereafter we were approached by Internet entrepreneur Eric Brewer with the offer of a powerful search engine and database he would develop and donate. The search engine, which will be described more fully by GSA Administrator David Barram, was a major catalyst in bringing all government information together in a way that the American people can find, quickly and easily. As we finalized our plans we discovered, as often happens in the Internet world, the name was similar to other existing portals. We chose the name FirstGov to signify the citizens' first click to electronic government.

Last June, the President announced FirstGov in his first-ever webcast address to the nation, challenging government and industry to finish creating it within 90 days. Exactly 90 days later -- in Internet time -- the President announced the launch of this site. Building on President Clinton's and Vice President Gore's efforts to expand citizen access to online government, FirstGov will cut red tape, make government more responsive to the needs of citizens, and expand opportunities for participation in our democracy.

Specifically, in a September 22 Internet address to the nation, President Clinton announced the launch of the first-ever U.S. Government web site that provides the public with easy, one-stop access to all federal government online information and services. This web site -- located at www.firstgov.gov – provides a single online information portal that connects Americans with information and resources to one of the largest and most useful collection of web pages in the world. A breakthrough in one-stop shopping for government services, FirstGov allows citizens to conduct searches faster and more efficiently, by topic rather than by agency, and to have easy access to federal government information 24 hours a day, 7 days a week.

FirstGov allows users to search all 27 million Federal agency web pages at one time. And it has plenty of room to grow. It can search half a billion documents in less than one-quarter of a second and handle millions of searches a day. The Web Site also provides access to the home pages of major agencies and entities in all three branches of government, a section that provides topics of current interest to web users (e.g., a direct link to the Weather Service during

hurricane season, to NASA during a shuttle launch, or to IRS during tax season), and key sites that access State and local government web pages. To increase efficiency, FirstGov allows citizens to find information intuitively -- by subject or by keyword.

The initial response to FirstGov has been largely favorable. Initial estimates show that after the first four days, about a quarter of a million people had visited the site. More interestingly, web traffic has increased for agencies with the launch of FirstGov: The Department of Transportation reported a large increase and the cross-agency site Disability.Gov reported a nearly 3-fold increase. In addition, the online customer feedback about FirstGov is widely supportive: of roughly 700 messages received by FirstGov in its first week, the vast majority were both supportive of the site and excited about the opportunity to help make the site better through their comments. Finally, to demonstrate the support for FirstGov among IT professionals, at a conference last week of State Chief Information Officers involving the Federal CIO Council, the States said they thought FirstGov was a tremendous advance and asked how they could work with the CIO council and be a part of it! In this way we can build on the success at the Federal level and move toward transformation that links all levels of government.

The ability to find government information and services intuitively and quickly is the key to making electronic government succeed. It does not matter how many or how useful government on-line services are if they cannot be found is a straightforward manner. FirstGov is the initiative that helps to solve this problem. It indexes these efforts, currently found in many places across government, and provides that intuitive link.

FirstGov is a foundational element in our e-gov effort. Both the Director of OMB and I have given special attention to this project, and I sit on the governing board of FirstGov. GSA Administrator David Barram will give more details on FirstGov.

Where do we go from here?

FirstGov is a revolutionary step in the way that the government provides information and services. It provides easy and comprehensive access to all Federal online information. A visitor to a page that links to FirstGov need not know what agency provides student loans to get information on student loans; the search engine as well as the topic directory can provide this. And FirstGov partners may offer yet a third way to access the information in a way that fits the users needs. No other country in the world makes a comparable database available to the public.

Having said that, we are not content with the status quo. But, at the same time, I can't tell you exactly how we will go forward. The search engine and online indexes will become more useful over time. The search engine will learn which pages are the most useful to the citizens and display them more readily. The topic index will grow and encompass those sites most commonly looked for and accessed by the public. Ultimately, as agencies put more information online, FirstGov will be the catalyst for additional agency and cross-agency portals that continue to break down the existing stovepipes and lead to a real transformation in the way the government delivers information and services. Most importantly, citizen feedback will lead our

efforts to make our information and services more available online. The public will point our way, and through their direction we will give them a comprehensive and responsive electronic government that works better for the American people.

Thank you for listening and thank you for your support for our efforts in this area. I look forward to answering any questions.

Mr. HORN. Our next witness is the Honorable David Barram, the Administrator of the General Services Administration. Mr. Barram.

STATEMENT OF DAVID BARRAM, ADMINISTRATOR, GENERAL SERVICES ADMINISTRATION

Mr. BARRAM. Thank you very much, Mr. Chairman, Mr. Turner. I want to add my appreciation to you for providing this opportunity to explain the power of the elegantly simple idea that is FirstGov. I believe FirstGov is a singular achievement and one that will keep getting better—in fact, it must get better.

This administration has been devoted to making a government that works better and costs less. I believe we have done that. In that context, we had to do FirstGov. By now, the American people have come to expect that kind of productivity of us.

In my comments today I would like to briefly describe the three modules of FirstGov and then explain the least well-developed and least well-understood part of the FirstGov partners.

The first module, and most visible, is the main portal called FirstGov.gov. Behind that portal is the second module, a powerful searching and indexing technology provided to us by Fed-Search, the foundation created by Dr. Eric Brewer. The third module is our idea of offering continuous, direct access to the index behind FirstGov to a cadre of interested FirstGov partners, rather than giving it to ourselves as a proprietary government resource.

The FirstGov.gov portal was developed by the government following the letter and spirit of all competitive procurement processes using a fixed-price contract and, as Sally said, in 90 days—an amazingly short 90 days. When you sign on to FirstGov.gov, up comes this simple, elegant, easy-to-look-at, mainly blue and white page that has already received accolades in focus groups and through feedback directly to FirstGov. It invites you to find what you want in the way you want and when you want it because it is open 24 hours a day.

You can click on a topic, such as learning, and get to a page with a whole list of excellent government Web sites about learning. You can click on Congress and get to Thomas or to the House Web sites. You can click to a site where you can be directed to State and local government sites.

You can click to one of the periodically changing featured sites. Right now, we are featuring "severe weather" and "school stuff." Or you can decide you just have to say something to your government to give us feedback, and if you want to search by keyword we have a comprehensive index waiting for your search query.

That index was built by Dr. Eric Brewer's Fed-Search Foundation. A few people seem to be skeptical of the Fed-Search-government relationship. I would like to see us get over that, and soon. Eric Brewer is here today, and you can hear the Fed-Search story directly from him.

Eric Brewer and Dave Binetti, who is the president and CEO of Fed-Search, have been magnificent partners throughout this effort. At every turn when we presented them with one more need of government, they gave it to us because they wanted to do this right and wanted to be sure that it was above reproach. Those who subscribe to the "don't believe what I say until you see what I do"

credo will like Eric Brewer. He is what he said he was, a private citizen simply interested in giving a gift, a very generous gift, to his country, a gift that will help strengthen our democracy.

Fed-Search uses the Inktomi technology to do its searching and index. In a few weeks, they spidered—searched—all publicly available government Web pages and indexed the 27 million pages. Fed-Search will keep the index updated.

The third part of FirstGov is the FirstGov partner idea.

As we were developing FirstGov we knew that most Internet users had a favorite portal, or a small group of portals, they almost always used. Something like 85 percent of users navigate the Web via the big three—Yahoo, AOL, NetScape or MSN. In addition, there are over 200 other portals serving the increasingly large base of regular users. These portals have flourished because they innovate and provide a service to their customers. They get their customers the information they want, their customers want, in the way they want it, at the speed they want it; and the portals that survive will survive because they get better and better.

So we figured we should design FirstGov to be attractive to these successful portals and thereby allow our ultimate customers, the American citizens, more choice. We believe FirstGov.gov is good, and we plan to keep it at the state-of-the-art. But citizens are used to picking from their own personal views of the best. They should have that choice, rather than being forced to use only the government-provided site if they want quick access to all government information.

We had some conditions, though. These conditions resulted directly from concerns some citizens have expressed about the "wild west" character of the Internet. One condition is that citizens should have free first use of all government information. The Fed-Search index has all the publicly available government pages, all 27 million pages. Through FirstGov, the first use of government information will be free to all citizens.

Another condition is that no individual can be tracked while browsing government pages. We require that security must be excellent, and there can be no advertising on pages displaying government Web sites. You get all that when you log on to FirstGov.gov, and that's what we will require of any FirstGov partner's portal.

All these things led us to the idea to allow other portals, public and private, to become FirstGov partners. We would like them and, therefore, their customers to have access to the results of a search in Fed-Search should they so choose, rather than being forced to rely exclusively on their own proprietary and incomplete data bases.

When you want to search for government information on FirstGov, there are four ways to go.

One is the most obvious. Any portal, whether or not a partner, can point to the FirstGov URL and when the user clicks that user is transported to the FirstGov.gov portal. That's the same as if you typed in the URL on any browser.

The other three are simply three ways any independent portal can join the FirstGov world and demonstrate to its customers that it subscribes to a basic set of principles governing the privacy and

quality of those accessing government information. The independent portal benefits by being able to provide better service to its customers, the FirstGov brand benefits by having more people know about and use it, and the American people benefit by knowing they can count on certain safeguards while navigating government information.

In the three models, each portal agrees to the FirstGov conditions. Along with the protections, the agreement provides, it sets a high standard for access to government information and transactions that benefit all involved.

In the first of the three models, the bronze model, the portal puts a FirstGov logo, or words, with a link to FirstGov on the portal site. Clicking there takes the user directly to the FirstGov.gov page, the government page, and she proceeds as if she had come there originally. This level of partnership is at no cost to the partner.

The second model, silver, has a FirstGov search box, where the user can enter a word or words directly from the partner's page, with the promise of a keyword search. The keyword is processed by Fed-Search, and results are returned to the user on a FirstGov page displayed on the user's PC. Now the user is in FirstGov, the government portal. This service is free from Fed-Search. There is no cost to the partner.

In the third model, gold, the portal displays the search box as though it were on the portal's own—as though it were the portal's own search box. When the results are returned, they appear as though they were on the portal's own search return page. The portal retains the option to advertise on the search return page, providing a revenue stream for the portal. But let me be clear. When the user then clicks to the government site from that portal, that user is now in the government site and all those conditions that government sites have prevail.

For this industrial-strength access and customized formatting, the portal pays Fed-Search a nominal charge to process the search, a sum designed to simply cover costs. The portal provides its own bandwidth to Fed-Search, and Fed-Search provides proprietary software, engineering support and training to the portal, guaranteeing optimal performance of the portal. The portal still adheres to FirstGov principles.

As of Friday—and in my testimony I think I have 178 companies—that number is now 226, I believe, companies and nonprofits have already shown serious interest in becoming FirstGov partners. They know the conditions, and they see the value. We are pleased because we feel this validates our initial thinking that offering access to the index could result in innovative, new, citizen-centric business models that were not previously feasible.

The FirstGov partners program is not a mystery. It is just what I described and has been for weeks. When we first introduced the idea, we listened to the concerns and excitement from all quarters and have responded by modifying the partnership concept and conditions substantially to make it the best we could.

Mr. Chairman, I consider this a proud moment for the Federal Government. I hope you do, too. In just a week, FirstGov has captured the imagination of tens of thousands of people. By now, citi-

zens have likely made over a million visits to the FirstGov.gov portal. Many have told us how much they like it and a few things we should get better at.

Thank you again for your constant attention to the efforts of so many to making a better government. It makes it easier for people to do what they need to do and uses their money wisely.

Mr. HORN. Is that the statement?

Mr. BARRAM. That's my statement.

[The prepared statement of Mr. Barram follows:]

Statement of
THE HONORABLE DAVID J. BARRAM
ADMINSTRATOR, GENERAL SERVICES ADMINISTRATION
before the
COMMITTEE ON GOVERNMENT REFORM
SUBCOMMITTEE ON GOVERNMENT MANAGEMENT,
INFORMATION, AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES
October 2, 2000

Introduction

Mr. Chairman, I want to add my appreciation to you for providing this opportunity to explain the power of the elegantly simple idea that is FirstGov. I believe FirstGov is a singular achievement and yet one that will keep getting better - that must keep getting better.

This Administration has been devoted to making a government that works better and costs less. I believe we have done that. In that context we had to do FirstGov. By now the American people have come to expect that kind of productivity of us.

In my comments today, I'd like to briefly describe the 3 modules of FirstGov and then explain the least well–developed and least well–understood part: the FirstGov partners.

The first module, and most visible, is the main portal, called FirstGov.gov. Behind that portal is the second module, a powerful searching and indexing technology provided to us by Fed-Search, the Foundation created by Dr. Eric Brewer. And the third module is our idea of offering continuous, direct access to the index behind FirstGov to a cadre of interested FirstGov partners, rather than keeping it to ourselves as a proprietary government resource.

FirstGov.gov – the Portal

The FirstGov.gov portal was developed by the government, following the letter and spirit of all competitive procurement processes, using a fixed price Contract. (In an amazingly short 90 days, I might add!) When you sign on to FirstGov.gov, up comes this simple, elegant, easy-to-look at, mainly blue and white page that has already received accolades in focus groups and through feedback directly to FirstGov. It invites you to find what you want, in the way you want, and when you want it, because it is open 24 hours a day.

You can click on a topic, such as Learning, and get to a page with a whole list of excellent government web sites about Learning. You can click on Congress and get to Thomas or to the House web site. You can click to a site where you can be directed to state and local government sites.

You can click to one of the periodically changing, featured sites. Right now, we are featuring "severe weather" and "school stuff". Or you can decide you just have to say something to your government … give us feedback. And if you want to search by keyword, we have a comprehensive index waiting for your search query.

Fed-Search

That index was built by Dr. Eric Brewer's Fed-Search Foundation. A few people seem to be skeptical of the Fed-Search-government relationship. I'd like to see us get over that - soon. Eric Brewer is here today and you can hear the Fed-Search story directly from him.

Eric Brewer and David Binetti, the President & CEO of the Fed-Search Foundation, have been magnificent partners throughout this effort. At every turn, when we presented them with one more need of the government, they gave it to us because they wanted to do this right and wanted to be sure that it was above reproach. Those who subscribe to the "don't believe what I say until you see what I do" credo, will like Eric Brewer. He is what he said he was - a private citizen simply interested in giving a gift, a very generous gift, to his country. A gift that will help strengthen our democracy.

Fed-Search uses the Inktomi technology to do its searching and indexing. In a few weeks, they spidered (searched) all publicly available government web pages and indexed the 27 million pages. Fed-Search will keep the index updated.

FirstGov Partners

The third part is our FirstGov Partner idea.

As we were developing FirstGov, we knew that most Internet users had a favorite portal, or small group of portals they almost always used. Something like 85% of users navigate the web via the big three - Yahoo, AOL or MSN. In addition, there are over 200 other portals serving the increasingly larger base of regular users.

These portals have flourished because they innovate and provide a service to their customers. They get their customers the information they want in the way they want it at the speed they want it. And the portals that survive will survive because they get better and better.

So, we figured we should design FirstGov to be attractive to these successful portals and thereby allow our ultimate customers – American Citizens - more choice. We believe FirstGov.gov is good and we plan to keep it at the state-of-the-art. But, citizens are used to picking from their own personal views of the best. They should have that choice, rather than being forced to use only the government-provided site if they want quick access to all government information.

We had some **conditions**, though. These conditions resulted directly from concerns some citizens have expressed about the "wild west" character of the Internet. One condition is that citizens should have free first use of all government information. The Fed-Search index has all the publicly available government pages – all 27 million pages. Through FirstGov, the "first use" of government information will be free to all citizens. Another condition is that no individual can be tracked while browsing government pages. We require that security must be excellent, and there can be no advertising on pages displaying government web sites.

You get all that when you log on to FirstGov.gov. And that's what we will require of any FirstGov Partner's portal.

All these things led us to the idea to allow other portals (public and private) to become FirstGov partners. We would like them – and therefore their customers – to have access to the results of a search in Fed-Search, should they so choose, rather than being forced to rely exclusively on their own proprietary and incomplete data bases.

When you want to search for government information on FirstGov, there are 4 ways to go. One is the most obvious. Any portal, whether or nor a partner, can "point" to the FirstGov URL and when the user clicks, that user is transported to the FirstGov.gov portal. The same as if you typed in the URL on any browser.

The other 3 are simply 3 ways any independent portal can join the FirstGov World and demonstrate to its customers that it subscribes to a basic set of principles governing the privacy and quality of those accessing government information. The independent portal benefits by being able to provide better service to its customers. The FirstGov brand benefits by having more people know about and use it. The American people benefit by knowing that they can count on certain safeguards while navigating government information.

In the 3 models, each portal agrees to the FirstGov conditions. Along with the protections the agreement provides, it sets a high standard for access to government information and transactions that benefits all involved.

In the first of the 3 models (Bronze), the portal puts a FirstGov logo (or words) with a link to FirstGov.gov on the portal's site. Clicking it takes the user directly to the FirstGov.gov page and she proceeds as if she had come there originally. This level of partnership is at no cost to the partner.

The second model (Silver) has a "FirstGov search box," where the user can enter a word or words directly from the partner's page, with the promise of a keyword search. The keyword is processed by Fed-Search and results are returned to the user on a FirstGov page displayed on the user's PC. Now the user is in FirstGov. This service is free from Fed-Search. There is no cost to the partner.

In the third model (Gold), the portal displays the search box as though it were the portal's own search box. When the results are returned they appear as though they were on the portal's own search return page. The portal retains the option to advertise on the search return page, providing a revenue stream for the portal. But, let me be clear. When the user clicks to the government site, from the portal, that user is now on the government site and no advertising is allowed.

For this industrial-strength access and customized formatting, the portal pays Fed-Search a nominal charge to process the search, a sum designed simply to cover costs. The portal provides its own bandwidth to Fed-Search, and Fed-Search provides proprietary software, engineering support and training to the portal guaranteeing optimal performance of the portal. The portal still adheres to the FirstGov principles.

High interest so far

As of Friday, 178 companies and non-profits have already shown serious interest in becoming FirstGov partners. They know the conditions and they see the value. We are pleased, because we feel this validates our initial thinking that offering access to the index could result in innovative, new, citizen-centric business models that were not previously feasible.

The FirstGov Partners Program is not a mystery. It is just what I described and has been for weeks. When we first introduced the idea, we listened to the concerns and excitement from all quarters and have responded by modifying the partnership concept and conditions substantially, to make it the best we could.

Mr. Chairman, I consider this a proud moment for the federal government. I hope you do, too. In just a week, FirstGov has captured the imagination of tens of thousands of people. By now, citizens have likely made over a million visits to the FirstGov.gov portal. Many have told us how much they like it and a few things we should get better at.

Thank you, again, for your constant attention to the efforts of so many to making a better government that makes it easier for people to do what they need to do and uses their money wisely.

Mr. BARRAM. I would like to do a quick little demo.

Mr. HORN. All right. Go ahead.

I want to ask Ms. Katzen, you have to leave when?

Ms. KATZEN. 11:05.

Mr. HORN. OK. 11:05. Because I want to make sure we have enough for 20 minutes of questioning before you leave. So I will have to interrupt some of the presenters, but go ahead, Mr. Barram.

Mr. BARRAM. Let me take just a minute.

What you see up on the screens on the two sides of you, and up front you can see it on yours, is a picture of the FirstGov page. I trust many of you have already seen it. It looks good, and it is very functional.

Do something, Bill, anything.

He just typed in the words "Social Security," and up came a list of results. He is clicking on the first one, and it takes you to the Social Security page and the top 10 most requested services from Social Security on-line. So click, click and we were there.

Now he is back at the FirstGov home page. He clicked on featured subject under severe weather and got to the second page under severe weather and is looking for Hurricane Keith, I think.

This is a NOAA page, National Hurricane Center. So we are into the Department of Commerce's NOAA's page now, and there it is. It is still down there circling around the Yucatan, not a place to be.

We could do 2 hours of this. That's enough. You get the idea. We will have it available. If there are other questions you can ask about, we can find it. Find out how many times you are listed, Mr. Chairman, in the government Web pages.

Mr. HORN. Just so they aren't in Federal prison pages.

Dr. Brewer, it is a great pleasure to have you here. You have a very distinguished record. Please make your presentation, and that will help round out on the positive side.

STATEMENT OF ERIC BREWER, FOUNDER AND CHAIRMAN, THE FEDERAL SEARCH FOUNDATION, CO-FOUNDER AND CHIEF SCIENTIST, INKTOMI CORP.

Mr. BREWER. Thank you, Mr. Chairman and Mr. Turner. I am really glad to have this opportunity to speak to you today about the Federal Search Foundation.

The free flow of information is a basic tenet of American government. Freedom of speech, our judicial system and even the basic principles of capitalism all revolve around the free flow of information. The Internet is the greatest tool for this flow in the history of the world; and, as such, it can be the most potent ally for the citizens since the Constitution itself.

The mission of the Federal Search Foundation is not just to build a government search engine but rather to catalyze an Internet-enabled government. We seek to empower citizens with comprehensive, unbiased information and interactive services that make government more responsive to the public. The creation of a comprehensive search engine and its inspiration of the FirstGov portal are the first steps toward this goal.

Early in my career as a faculty member at UC Berkeley, I received Federal assistance in the form of a DARPA research grant. This grant led to novel search technology, which led to Inktomi, an Internet infrastructure company, and then led to the Federal Search Foundation. Thus, in creating the Foundation, I am giving something back while I also hope to promote truly American values of open, participatory democracy. In fact, I hope my whole generation of Internet entrepreneurs finds equally meaningful ways to give back to society.

But, by design, the gift is only a catalyst. The FirstGov site was not built by me, nor by Inktomi, nor by Fed-Search. It was built by the government itself, which is the only reason that FirstGov is an important step toward an Internet-enabled government.

The effects of this catalyst continue to grow. In addition to the FirstGov site, we have seen increased focus by all three branches on their Internet presence, an increase in the quality of government sites, and an increase in traffic and feedback. The feedback has been overwhelmingly positive. In fact, much of the feedback thanks us for sites that existed before FirstGov, such as the NOAA site. We simply brought them to the public.

I hope that others, private and public, will continue the momentum and put their own government-related services on-line, leading to the same kind of diversity that we see for television, radio, and print media. In fact, the Fed-Search Foundation hopes that our mission as catalyst will be complete in a few years and that we can simply cease to exist. To me, the most valuable and personally rewarding part of the gift is the confidence it gave Federal employees that they could build a great site and that they could do it on Internet time.

The Internet is a deeply American phenomenon, not because of its origin but because it reflects our values. It is the ultimate expression of freedom of speech, it is fundamentally open, and it has transformed our economy in the classic American way, by enabling individuals to achieve their dreams through inspiration and hard work.

I am fortunate to be one such American. I am honored to be able to give something back. But, I am even more honored to be able to help the government achieve the kind of deep understanding and use of the Internet that will promote these values well beyond the information age.

Thank you for your time.

Mr. HORN. We thank you again, Dr. Brewer. That's very generous of you, and we will get into some of those questions.

[The prepared statement of Mr. Brewer follows:]

Prepared Statement of Eric Brewer,
Founder and Chairman of the Federal Search Foundation

Before the House Committee on Government Reform Subcommittee on Government Management, Information, and Technology

Mr. Chairman and distinguished members of the Committee, I appreciate the opportunity to provide you with my testimony regarding the Federal Search Foundation and its mission, which includes two distinct goals. The first and most obvious goal is to build, operate, and make available to the public a search engine for all public US Government documents, which includes 27 million web pages so far. The second goal is harder but much more important: to promote a government that understands and uses the Internet *to its full potential,* that is, a government in which everyone not only uses the Internet, but also views it as a primary medium for communication and public service.

In March of this year, I approached the Clinton Administration with a preliminary offer to build such a search engine at no cost to the government. These discussions culminated in a June 24th webcast in which the President announced the development of a web site called "Firstgov.gov" that would employ the Fed-Search engine, pledging that the site would be up and running within 90 days.

I am proud to report today that we met that challenge, with Firstgov.gov and the Fed-Search engine launching exactly as promised.

Firstgov.gov is a government-focused web portal through which the public may access all publicly available online government resources in a straightforward, streamlined manner. Visitors may navigate through Firstgov.gov without needing to be familiar with the differences in jurisdiction between the EPA and the Bureau of Land Management, or knowing that the Coast Guard is actually part of the Department of Transportation – and not the military.

Still, no portal is complete without a tool that will allow users to find the information they're looking for quickly and without "surfing." This tool is a search engine.

Despite Firstgov's commendable efforts toward organizing the government's online resources, there simply is too much information – some 27 million pages so far across 20,000 websites – to put it all in one place. Private search engines can help, but they cover less than half of the government pages, and often return commercial websites as answers rather than the official government site individuals are seeking. For instance, if a student ran a search for "White House" on a private search engine they would not only get WhiteHouse.gov, the official White House web site, but would typically also find WhiteHouse.com, a pornography web site.

I established the Federal Search Foundation, a private non-profit charitable organization, to add this essential element to the Firstgov.gov web portal. We are funded through private donations and in-kind contributions. Currently, I am the primary donor to the Foundation, although we have received substantial in-kind donations from both Sun Microsystems and Inktomi Corporation, and we have received new offers of support since the launch. Our charter is to provide the search engine at no cost to the government for not only the Firstgov site, but any other federal government website as well.

However, this is not a perpetual gift. After a period of between 2-3 years, The Federal Search Foundation will turn over its servers and knowledge base to the government, and

the foundation will cease to exist. When I first tell people that the foundation has a limited lifetime, they find it confusing; their rough reasoning is "if this is a good thing, why end it in a few years?" My answer to this question goes to core of understanding the Foundation: since our ultimate goal is to create a government that understands and uses the Internet to its full potential, the engine cannot be run by any outside group, private or non-profit; *it must be run by the government itself.* In fact, it must become part of the *fabric* of our government. The limited lifetime for the Foundation effectively sets a deadline by which the government must determine whether the service is valued enough by the public to be worth continuing; 2-3 years should be sufficient time to make that decision and (if so chosen,) to secure funding, and be operationally ready to run a world-class search engine. Along the same line of reasoning, it is worth noting that Fed-Search even today provides only the search engine and not the whole Firstgov site, which was built by the GSA. I am proud that Fed-Search was the catalyst propelling people to take this major *internal* step toward e-government right now.

The Foundation is keenly interested in serving the public interest with the highest integrity. At the time we were proposing to make this gift to the Federal Government, we realized that in order to be a section 501(c)(3) charitable organization, the Foundation would be required to operate exclusively for charitable purposes and not for the benefit of private interests. (The Foundation has applied for tax exemption under section 501(c)(3), and based on conversations with the IRS, we are optimistic the application will be approved very soon.) Therefore, we took great care to verify that the Foundation's proposed gift of services to the U.S. government was legally permissible and that the terms of the gift would not specially benefit any private party.

The Foundation retained a special attorney, an expert in government procurement laws and regulations, to review the proposed gift and advise on its legality. That attorney concluded, based on similar cases that had been reviewed by the Comptroller General, that the U.S. government is fully authorized to accept a gift of gratuitous services where there is no expectation of payment. Our attorney also concluded that the law permits GSA to accept gifts of personal property made to the U.S. government. Not being satisfied with our own legal analysis, we asked our attorney to speak directly with GSA's General Counsel's office to confirm that they agreed with our conclusions. That conversation took place this summer, before we began to build the search engine, and GSA's lawyers did, in fact, share our conclusions.

With these preliminary issues resolved, the Foundation went about building the engine. The Foundation selected Inktomi as the search engine solution for this project for four reasons: familiarity, speed of implementation, scalability and likelihood of an in-kind contribution. Having contributed to the development of the Inktomi product, I am quite familiar with its technical capabilities, and it was the only one that I knew with absolute certainty could do the job. Second, given our extremely accelerated launch schedule, I knew that investigating the full extent of options available to us would make it impossible to actually meet the schedule. Third, the sheer volume of documents to be covered by the search engine demanded proven scalability, something that Inktomi has demonstrated. Finally, Inktomi was willing to donate most of the cost of its services in recognition of the broad public benefit the Foundation intends to deliver. For all of these reasons, the Foundation concluded that using Inktomi was the right way to meet our promise to the Federal Government.

Despite this clear choice, the Foundation was concerned that its charitable work for the U.S. government not produce any kind of unfair advantage for Inktomi should the government actually wish to employ a search engine at the conclusion of the

Foundation's 2-3 year lifetime. To avoid even the appearance that Inktomi would have a special advantage, the Foundation took two proactive steps. First, the Foundation and GSA specifically agreed that Fed-Search would not be involved in drafting specifications to be used in the request for bids on any search engine contract nor would Fed-Search be in any way involved in selecting the company that would be awarded any search engine contract. This agreement is expressly included in the Memorandum of Understanding (MOU) between the GSA and the Foundation.

Second, Fed-Search recognized that even if Inktomi were legally qualified to compete for a future government search-engine contract, Inktomi might be perceived as having an advantage because of the work it would already have done with Fed-Search. To ensure that Fed-Search serves the government's best interests, and to give the government full latitude to consider any and all proposals on their own merits, regardless of the services provided by Fed-Search, the Foundation has promised to continue providing its search engine for free until GSA not only selects a contractor, but also until that contractor has done the necessary work to put its search engine into operation. This commitment is also included in Fed-Search's MOU with GSA. Thus, the U.S. government can pick whichever search engine company offers what the Government believes will be the very best service at the very best price without any concern about how its selection may affect the speed with which it can replace the search engine.

Legal issues aside, however, there are two additional issues that the Foundation also must address: privacy and fairness.

First, protecting privacy is of great importance to the Foundation. The Foundation's engine covers web sites that have a ".gov" or ".mil" in their primary domain suffix, which by definition includes the Congress, the U.S. Courts, the White House and all Cabinet departments, independent agencies and even certain state websites. However, only publicly available documents will be included in the index; no data that the government treats as private, classified, password-protected, or firewall-protected will be covered by the search engine. In addition, to protect personal privacy, there will be no tracking of personal user information of any kind. As one step to ensure this principle, the Foundation will not deploy "cookies" without the express permission of those employing the service.

I also want to ensure that the Foundation operates in a fundamentally fair manner. Even though we are a private charity that has created a product using private resources, our mission is to help the U.S. government make that product available to the public it serves. We will support the government as it works with government, non-profit, and private-sector partners to make the search engine widely accessible. That's why we have made our engine available to libraries, schools, the states, and even commercial third-parties who desire to tap into the engine. We will work with all partners who are "certified" by the Firstgov project team under the standards they have to developed to ensure that the engine is being used in what the government sees as an appropriate manner that serves the public interest. If you are interested in exploring the criteria for certification, I refer you to the Firstgov project team that developed the criteria. The Foundation relies on the government's certification and does not apply criteria of its own.

Once certified, these partners may employ one of three options to connect to the Foundation's engine, two of which are entirely free. The first and simplest method for connection is nothing more than a simple HTML link in the form of a Firstgov image. A partner site may place this image on their website, and any user clicking on the image

will be transported to the Firstgov homepage where they can access the engine. This is entirely free to partners.

The second method is an enhanced version of the above. This method allows the partner to place a simple search box on their website that will return results from the Fed-Search engine through the Firstgov website. In this method, the partner controls the look and feel of the page with the search box, while the page with the results of the search is the normal Firstgov page that appears as a new window (over and above the original partner search box page. This method is also entirely free to partners and is equally as powerful as Firstgov -- returning precisely the same results to particular queries as would Firstgov itself.

Finally, there is an option available for those wishing to employ a more customizable connection. The Foundation will arrange for a partner to have a direct, private connection to its engine. Both the query box and the results will be returned on the private party's own web site. This will allow for a partner to customize completely the results from the search to comply with their own interface and allow for greater control in general. Each direct connection entails a new hardware configuration on Fed-Search's servers, some new programming, establishment of new tracking for queries originating with the party receiving direct access, and allocation of personnel time to support the private party using the connection. The activities have real costs, which are passed on to the partner. The Foundation charges no additional fees to partners that elect to use this mechanism, and there is no profit involved for the Foundation.

Some have asked why third parties that want this specialized direct connection must pay the associated costs. The Foundation's mission is to serve the public by supporting the federal government in its efforts to make government official more accessible to everyone at absolutely not cost. To the extent that third parties want to join us in that mission and support the federal government's delivery of this public service, we will make the search engine available for free. However, to the extent that third parties want to use the search engine as part of their private activities, particularly business activities, we are glad to make the search engine available, but we ask that those third parties pay the additional cost of getting the customized service. Our mission as a charity is to serve the public, not to subsidize the private business activities of certain entities. We want to direct our resources toward serving the public at large.

This is the extent of the Federal Search Foundation and its mission.

Finally, it has been my experience that people achieve a deeper understanding of something when they know the motivations behind it. So let me explain why I have initiated this project, which is, quite frankly, both time consuming and expensive.

Early in my career, as a faculty member at the University of California at Berkeley I received Federal assistance in the form of a DARPA (Defense Advanced Research Projects Agency) grant. With that assistance, I was able to create new technology that led me to build one of the leading Internet infrastructure companies in the world, Inktomi Corporation. So, the money behind this gift came indirectly from an investment by the government itself, and I am honored to be able to give something back. The gift is in fact the fulfillment of one of DARPA's primary goals, which is to create technology for future use by the government itself. To summarize, it is the government's involvement in the genesis of this technology and my desire to give something back that led to the creation of Fed-Search, which is at its heart a catalyst for seeing that we all have a fully Internet-enabled government.

Mr. Chairman, in conclusion, I would like to thank you for allowing me to testify at today's hearing. I would also like to offer to you, members of the Committee and the entire Congress, an open-ended invitation from our team to assist you in answering any questions you may have concerning the Federal Search Foundation or the Firstgov site.

Mr. HORN. Our next presenter, as we always have at these hearings, the very able staff of the U.S. General Accounting Office. So we have this morning David McClure, the Director of Information Technology Management of GAO. Dr. McClure.

STATEMENT OF DAVID MCCLURE, DIRECTOR, INFORMATION TECHNOLOGY MANAGEMENT, U.S. GENERAL ACCOUNTING OFFICE

Mr. MCCLURE. Mr. Chairman, Mr. Turner, it is a pleasure to be here.

FirstGov represents, I think, an important milestone in evolving toward Federal electronic government. There is no question about that. Portals like this are being used with increasing frequency at all levels of government.

As is evident from some of the information searches that have been presented this morning and in some of the testimonies that are being presented to you today, FirstGov is not yet overly context sensitive. As is the case with commercial Internet searches, the queries on FirstGov can yield hundreds and even thousands of URL references, some of which may not necessarily be relevant to the information or services that the user is looking for.

However, I think it is very important to point out that the capability, the search capability, is not the end game for FirstGov. It is an evolving concept, and we would expect many opportunities to emerge for increasing the capability and the functionality of this site.

Not all issues associated with running FirstGov today and on a permanent basis have been settled, and I just want to briefly mention four of those issues to you.

The first of them deals with maintaining the security of the FirstGov Web site itself. Computer and network vulnerabilities swell to immense proportions in the Internet age. The opportunities to create and cause problems for the site accentuate the need for careful, coordinated information security planning.

Based on the available information and discussions we have had with GSA, FirstGov representatives and even representatives from Inktomi, there are good security measures that have been put in place for the FirstGov site. However, there are several elements associated with a comprehensive security program that are lacking. These include the establishment of a comprehensive computer security plan, adequate coordination of security measures being supplied by the different contractors that are being used for the operation and maintenance of FirstGov, and completion and independent validation and verification of risk assessments on the site. These are fundamental computer security steps.

FirstGov represents one of the most important national sites on the Internet today. Given its visibility and its importance, we would urge that these kinds of security measures be put in place; and indeed, in conversations with GSA, we are confident that a great deal of action has already been initiated.

A second challenge deals with taking reasonable, practical steps to ensure that FirstGov does not enhance abuse of the government's information resources. We cannot ignore the assistance that such a tool provides to those with malicious intentions who regu-

larly conduct tedious electronic reconnaissance of Federal Web sites in search of information that can assist in their wrongdoings.

FirstGov search results provide perhaps the most comprehensive index of all information on the U.S. Government's public Web sites. Commercial search engines commonly index only a fraction of the government sites and pages. The search engine, to be perfectly clear, does not search classified or for sensitive information on government sites. That's not its purpose. But it is imperative that agencies provide effective frontlines of defense by ensuring that their own public Web sites do not post or facilitate access to inappropriate information, and it is also important that FirstGov itself provide an effective reinforcement by considering formal policies and procedures to routinely check, identify questionable or sensitive materials and removing them as quickly as possible from the FirstGov index.

The point here is not to make FirstGov a governmentwide monitor, for computer security or privacy. It is a logical extension of what we would consider practical steps that can be put in place.

The third challenge deals with alleviating concerns that have been raised about the impact of the government's relationship both with the Federal Search Foundation and with official partners that are being established in the private sector. In 2 to 3 years, when an open, competitive bidding process is expected to occur for FirstGov, its systems operations, its development and its maintenance, it is important for everyone to understand how the transition will take place from the current arrangement to that new situation. It is also important that policymakers throughout the government have assurances that the Federal Government has adequate control of how official data from its Web sites are being collected and used now by the Federal Search Foundation and by whatever vendor or private entity assumes control of this project in the future.

With respect to the official sponsors or partners to FirstGov, the board may simply need to explain the advantages it sees behind why these partnerships are essential to FirstGov's success, given the controversies that can emerge with these kinds of relationships.

The fourth challenge lies with extending, tailoring and coordinating access to government information. FirstGov is a mechanism that should be adaptable to changing technology and to changing needs of users. In its present form, there are other government data bases and information that can be indexed, more so than the public Web pages that it currently searches. These are just issues that need to be addressed as the site continues in development.

Surveys also indicate that an increasing number of Internet users prefer to tailor their views of information based on their personal needs and preferences. In the public sector, legitimate privacy concerns and policies prohibit these practices which are conducive to the type of electronic interaction and Web page customization that you might want to see in the government. So these are, again, issues that need to be brought to everyone's attention.

So let me say, in conclusion, that the FirstGov effort represents a significant achievement toward enabling electronic government. Larger issues do indeed loom on how to sustain the site as a per-

manent feature of the Federal Government, and it takes on even greater significance in today's Internet environment.

An overall management strategy and blueprint for setting expectations, showing direction and demonstrating results would be very helpful to see. However, this plan should also be flexible to allow for creative approaches to accessing information and responding to the dynamic technology changes in today's environment.

Thank you, Mr. Chairman; and I will be happy to answer any questions.

Mr. HORN. Thank you. We will get further testimony, I am sure, from you.

[The prepared statement of Mr. McClure follows:]

United States General Accounting Office

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Testimony

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ELECTRONIC GOVERNMENT

Opportunities and Challenges Facing the FirstGov Web Gateway

Statement of David L. McClure
Director, Information Technology Management Issues

GAO-01-87T

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to be here today to participate in the Subcommittee's hearing on the status of *FirstGov.gov*, the Administration's new web site that is intended to serve as a portal to all of the federal government's publicly available, on-line information and services. As you know, *FirstGov.gov* became operational just 10 days ago. My remarks today will focus primarily on describing what can be accomplished with *FirstGov.gov* and identifying challenges that should be addressed as its continued development and refinement move forward.

As this Subcommittee is well aware from other hearings, federal agencies are beginning to provide an array of on-line or e-government services. Although the predominant service available to date involves the collection or dissemination of information and forms, government agencies at both the federal and state levels have also begun enabling citizens and businesses to perform such functions as buying and paying for postage stamps or commemorative coins, submitting bids and proposals for government contracts, and renewing drivers' licenses. These changes are being accelerated by Presidential directives, legislative mandates—such as the Government Paperwork Elimination Act (GPEA)[1] and the Electronic Signatures in Global and National Commerce Act (E-SIGN)[2]—and growing expectations from a larger number of citizens and businesses as they embrace the use of the Internet and World Wide Web. Opportunities for additional services abound as new global web technologies are developed and e-government applications become more prominent and widely accepted by citizens and businesses nationwide.

On-Line Government Presence Is Growing

In prior testimony and reports, we have noted the opportunities for greater citizen access and interaction with the federal government via on-line and Internet-based services.[3] In many cases, this also offers potential for conducting government business and activities in a more cost effective and efficient manner. However, we have also cautioned the Congress that the likelihood of successful outcomes will depend on agencies' top management involvement, support, and leadership, as well as diligent

[1] P.L. 105-277, Div. C, Title XVII.

[2] P.L. 106-229.

[3] *Electronic Government: Government Paperwork Elimination Act Presents Challenges for Agencies* (GAO/AIMD-00-282, September 15, 2000); and *Electronic Government: Federal Initiatives Are Evolving Rapidly But They Face Significant Challenges* (GAO/T-AIMD/GGD-00-179, May 22, 2000).

oversight from OMB and the Congress. Moreover, many electronic government initiatives challenge agencies to address a variety of information technology management issues that have historically troubled IT projects.

Irrespective of the challenges created by the so-called digital divide, the use of the Internet for commercial business and public-sector service continues to grow. Home access to personal computers and the Internet is increasing rapidly, and at least one source projected that 60 percent of U.S. households will have Internet access by the end of this year. Another recent study conducted by Momentum Research Group found that 62 percent of citizens and 83 percent of business users surveyed had used the Internet to access government services or information.

To improve the relevance of and access to on-line information and services, governments are turning to portals—umbrella web sites that operate as electronic front doors, linking users to a broad range of on-line resources. The President's December 17, 1999, memorandum on electronic government provided the charter for the government's efforts to develop a single governmentwide electronic portal for federal information and services. Specifically, the President tasked the Administrator of the General Services Administration, in coordination with other appropriate agencies, to "promote access to government information organized not by agency, but by the type of service or information that people may be seeking."[4] The response has been the rapid development of a web portal, *FirstGov.gov*, which is intended to link the government's more than 20,000 web sites and many millions of web pages and make it possible for citizens to obtain the information and services they need without having to ponder which federal agency controls which function.

State and some foreign governments have already implemented governmentwide web portals that provide users with links to information and services. For instance, by accessing Virginia's statewide portal (*http://www.vipnet.org*), residents can quickly connect to a site where they can renew drivers' licenses on-line. Similarly, users can access the Washington state portal (*http://access.wa.gov*) to link to sites for filing state tax returns electronically. According to an April survey by the National Association of State Information Resource Executives, 20 states (representing 50 percent of the nation's population) reported having

[4]The White House, Memorandum for the Heads of Executive Departments and Agencies on Electronic Government, December 17, 1999.

statewide government web portals. Eight more states (representing 23 percent of the population) reported plans to launch portals within a year.

FirstGov: Roles and Responsibilities

To provide ongoing direction to the FirstGov effort, the President's Management Council (PMC) established a FirstGov Board of Directors, which consists of eight members from the PMC and three members of the Federal CIO Council. The board is responsible for coordinating FirstGov issues across the executive, legislative, and judicial branches. Daily operations are managed by the General Services Administration (GSA), which has staffed a FirstGov project team to lead the effort. This team, in turn, manages a $4-million, 2-year contract to operate and maintain the *Firstgov.gov* web site. The contract does not cover services such as redesigning the web site or changing its hosted location. It also does not cover the electronic search function that (1) collects and indexes information from all government web sites, (2) stores that information in a single large database, and (3) performs searches on the database to fulfill user requests. That search function is being provided to *FirstGov.gov* free of charge for 3 years by the Federal Search Foundation (Fed-Search), through a memorandum of understanding with GSA on behalf of the PMC and the FirstGov Board. Dr. Eric Brewer, co-founder and chief scientist for Inktomi Corporation, established Fed-Search this past June. Fed-Search has a contractual relationship with Inktomi for the technology and technical support to provide its free service to *FirstGov.gov*

FirstGov: What It Does

FirstGov.gov is a federal government portal that provides a single point of access to all federal government information posted on the World Wide Web. Although its development is evolving, it is generally intended to provide citizens with broad access to federal information and services in an organized and efficient manner.

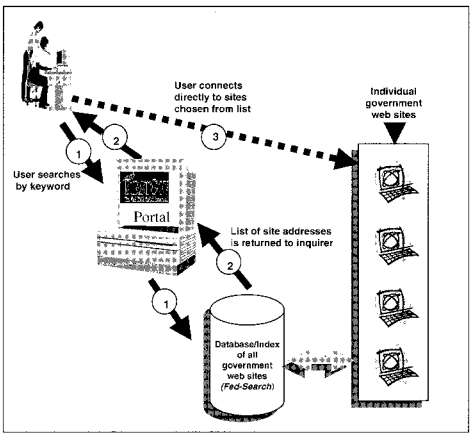
FirstGov works using three major elements: (1) *a user interface* (the *FirstGov.gov* web site) that includes links to government information and services (at present, a pointer system); (2) *a large database* that can contain at any point in time more than 500 million pages from all publicly accessible federal government web sites; and (3) *a search engine*—provided by Fed-Search—which uses a technique known as spidering or

crawling to examine all publicly accessible government web sites and then retrieve information for storage in the database.[5]

In short, *FirstGov.gov* serves as an intermediary among its users and agency web sites that offer information, resources, and access to electronic services. The process begins with the Fed-Search search engine, which "crawls" all government web sites and stores in its database any text that it finds at those sites. This large database is renewed at regular intervals to keep it up to date. Upon accessing the *FirstGov.gov* site, some users may decide to click on predefined topics of interest, which will link them to commonly requested government information and sites. However, many users seeking specific information or services will simply type a key word or words into the site's search box. The search criteria they enter is then relayed to Fed-Search, which scans its database for matching material. The database returns a list of web pages with brief text excerpts to indicate the pages' content. By clicking on an item on the list, the user will then be taken directly to the original government web page that had been indexed. Figure 1 portrays this process schematically.

[5]Spidering (crawling) is the automatic process of systematically traversing a group of web pages by following their embedded electronic links in order to build an index of relevant information.

Figure 1: Typical *FirstGov.gov* Search Process



Adapted from GSA data.

This process is similar to web searches done via many commercial Internet search sites, such as Yahoo, Google, or AltaVista. The unique value of *Firstgov.gov* is that it specifically aims to canvass all publicly accessible federal government web sites and thus can offer much more comprehensive and definitive results for government-oriented queries than can a commercial search engine. FirstGov officials estimate that current commercial search engines cover only about 20 percent of federal web pages.

As presently configured, the search engine is not particularly context-sensitive. In other words, if a given search does not produce helpful information, it is up to the user to define and redefine the search in ways that return more meaningful information. As a result, on any given search, the list of results can be substantial and may include irrelevant links. The following examples illustrate this point:

- Entering a keyword search for "Superfund" resulted in approximately 45,000 web pages that covered topics ranging from project locations, program policies, and overarching regulations. Such an overwhelming number of links could force a user to spend a significant amount of time looking for truly relevant information.

- A keyword search for "buy stamps" yielded a list of some 3,000 links. The links pointed to various web sites that offer information on where to buy stamps, how to use pre-canceled stamps, and food stamp programs. The task of identifying the correct web site to buy postage stamps—or re-executing the search with the word "postage" included—is left to the user.

FirstGov Partners Are Intended to Broaden Its Use

The board has proposed a partnership program intended to broaden exposure and participation in the FirstGov project. To promote and increase traffic to the FirstGov portal, organizations are being encouraged to connect to and utilize the Fed-Search search engine's capabilities. The board's plan is that organizations be linked to the search engine in several different ways, ranging from simply including the FirstGov brand as a clickable reference on the partner's web site to establishing a direct connection to the search engine, with the results displayed on the partner's web site. Table 1 shows a brief description of the three partner levels that have been established by the FirstGov project. All FirstGov partners will be required to comply with a list of seven basic conditions of use designed to guarantee such things as the integrity of the information, protection of users' privacy, free and open access to all users, clear attribution of the U.S. government source, and dissociation from advertising or any appearance of commercial endorsement.[6]

[6] *Commerce Business Daily*, July 6, 2000.

Table 1: Comparison of the three endorsed methods of connecting to the Fed-Search search engine.

	Level 1 (Bronze)	Level 2 (Silver)	Level 3 (Gold)
Description of Connection to Search Engine	Simple link with *FirstGov* logo	Search-box link with *FirstGov* logo	Search-box with *FirstGov* logo directly connected to search engine
Search Engine Results	*FirstGov* web site	*FirstGov* web site	Partner web site
Cost to Private Organizations	None	None	Annual and marginal cost
Implementation	Rapid	More difficult	Most difficult

Source: GSA.

Challenges in Making *FirstGov* Fully Operational

On June 24, 2000, President Clinton challenged GSA and its partners to develop the FirstGov portal within 90 days. A functioning web site was successfully brought on line September 22, 2000. While all parties involved met the deadline, and indeed FirstGov is less than a month old, not all issues associated with enhancing and running FirstGov have yet been settled. These issues include:

- *Maintaining the security of the FirstGov.gov site.* Known computer and network vulnerabilities—as well as the automated attack tools needed to exploit them—are increasingly being publicly posted on the Internet. This offers potential attackers with little technical skill and knowledge the opportunity to cause a great deal of damage, and accentuates the need for careful and coordinated security planning. In recent years we have consistently found security weaknesses at many federal agencies.[7] However, FirstGov currently has no comprehensive security plan and, from a security standpoint, has not been accredited for operational use.[8] FirstGov operations rely on components supplied by several different contractors and subcontractors, and these entities have not coordinated the security measures they have adopted, leaving the potential for security vulnerabilities. Further, independent tests of the site's access controls have not been conducted, nor has the FirstGov Board established a program for conducting periodic security assessments. It is critical that

[7] *Federal Information Security: Actions Needed to Address Widespread Weaknesses* (GAO/T-AIMD-00-135, March 29, 2000) and *Information Security: Serious and Widespread Weaknesses Persist at Federal Agencies* (GAO/AIMD-00-295, September 6, 2000).

[8] Accreditation is the formal declaration by a designated approving authority that an information system is approved to operate in a particular security mode using a prescribed set of safeguards at an acceptable level of risk.

these and other elements of a complete security program be put into place to meet governmentwide requirements and to ensure that security is consistently maintained throughout the life of this important and highly visible project.

- *Protecting the government's resources from malicious electronic search through FirstGov.* FirstGov is designed as a complete index of all information on the federal government's web sites. It provides a unique and invaluable tool for ordinary citizens to use in gaining access to government information, since commercial search engines index only a fraction of the government's sites. Unfortunately, the tool also provides assistance to wrongdoers who, as a result, no longer need to conduct tedious electronic reconnaissance at individual federal web sites to determine the location of sensitive information that might facilitate hacking or other malicious activity. Of course, the first line of defense is the individual federal agencies, who need to ensure that their web sites do not post inappropriate information. However, because *FirstGov.gov* enhances the ability of individuals to locate information at federal sites, the FirstGov Board may need to consider options for systematically checking or identifying questionable or sensitive materials. For example, the Fed-Search engine could check for certain specific kinds of information and leave them out of its database, even if that information remains available on an unindexed, publicly accessible web site. Currently, the FirstGov Board does not have formal policies or procedures in place for such routine checking.

- *Allaying concerns about FirstGov's relationship with the private sector.* The heart of FirstGov is a search engine and data index developed and maintained for three years as a gift to the government. The Federal Search Foundation has a memorandum of understanding with GSA but has stated that it is not bound by any contract. This raises questions about whether the government is in full control of how data from its web sites are collected and used. Questions have also been raised about the mechanics of how the government will interact with FirstGov's official partners. These concerns revolve around whether the partners will have special access to government information or receive other benefits simply from being partners—benefits that should not be exclusively theirs. By establishing more complete definitions and descriptions of these relationships, the FirstGov Board could help alleviate these concerns. This is particularly important given the expectation to contract the development and maintenance of *FirstGov.gov* in 2 to 3 years.

- *Extending, tailoring, and coordinating access to government information.* In his December 17, 1999, memorandum on electronic government, the

President broadly tasked GSA to "promote access to government information organized not by agency, but by the type of service or information that people may be seeking." This is a very large task. The government maintains many databases of information, not all of which can be indexed by a web-based search system such as FirstGov's. In addition, other electronic directories of government information have already been developed, including the Government Information Locator Service (GILS) and GPO Access. Further, a variety of ways exist to tailor the display of information to better meet user needs, and more ways will undoubtedly be devised in the future. For example, commercial web portals allow users to select the kinds of information they are most interested in and craft customized web pages to fit their personal needs.

As currently configured, FirstGov leaves these issues unaddressed. However, it may be possible to enhance FirstGov to index more of the government's information, provide users with more tailored views of that information, and work more closely with other existing government electronic directories. For example, software agents could be used to periodically search on-line information and directories based on a user's specified interests and automatically e-mail that user when new or updated information becomes available. A September 2000 Brown University study concluded that government web sites are not making full use of available technology. The FirstGov Board is aware of these issues and, indeed, is promoting FirstGov as a mechanism that can adapt to changing technology and user needs as time goes on. Working groups comprising representatives from federal agencies have been set up to address issues associated with site content, technological advances, and user feedback. Through these groups, the board will need to grapple with the issue of how *FirstGov.gov* fits in with other on-line government resources and directories and whether more sophisticated and powerful connections can be made among them. Current federal policy may limit the ability of a government site to tailor web pages to specific users because it restricts the use of special data files known as persistent cookies, which are used by commercial providers to carry out this function.[9] This policy restriction is a result of valid concerns about privacy.

[9]OMB Memorandum M-00-13, June 22, 2000, and letter from OMB's Administrator, Office of Information and Regulatory Affairs, to the Chief Information Officer, Department of Commerce, September 5, 2000.

In summary, FirstGov represents a significant achievement in that an important and previously unavailable capability—searching the entire government's web pages—was rapidly and successfully put into place. Now come the larger issues of how to sustain the site as a permanent feature of the federal government and how to expand it to take on greater significance.

We see four important issues for the FirstGov Board of Directors as this effort moves forward. Managing site security for *FirstGov.gov* needs to be improved; assessing and acting upon information in the Fed-Search database that might facilitate malicious activity; issues about private-sector sponsorship need to be addressed; and plans for the future need to be developed and communicated.

An overall management plan for *FirstGov.gov* would be a useful vehicle for setting expectations regarding what general functions are likely to be achievable for FirstGov in the near term, how the site will be managed on an ongoing basis, and how progress toward the larger goals set forth in the President's December 1999 memorandum will be measured. The plan would also likely go a long way in allaying concerns about coordinating the security of FirstGov and its information and verifying that site security is maintained on an ongoing basis. Such a plan would be subject to continual revision and need not be an impediment to the adoption of creative, unanticipated new approaches.

To assess the FirstGov effort, we interviewed officials at GSA and obtained official documentation on the FirstGov project. We conducted our audit work in September 2000 in accordance with generally accepted government auditing standards.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions that you or other members of the Subcommittee may have at this time.

Contact and Acknowledgments

For information about this testimony, please contact David L. McClure at (202) 512-6240 or by e-mail at *mcclured.aimd@gao.gov*. Individuals making key contributions to this testimony included Felipe Colon, John de Ferrari, Steven Law, Patricia Slocum, and William Wadsworth.

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Mr. HORN. Dr. Patrice McDermott is the information policy analyst at OMB Watch, and then we will have two more witnesses, Mr. Bohannon and Mr. Fleisher.

Dr. McDermott.

STATEMENT OF PATRICE MCDERMOTT, INFORMATION POLICY ANALYST, OMB WATCH

Dr. MCDERMOTT. Good morning. I want to thank you, Mr. Chairman and Mr. Turner, for the opportunity today, the fourth anniversary of the signing of the E-FOIA, to testify on FirstGov, the Federal Government's new Web portal.

My name is Patrice McDermott. I am a policy analyst at OMB Watch, a nonprofit research advocacy organization that works to encourage a more open, responsive, and accountable Federal Government.

For more than 15 years, OMB Watch has been calling for improved public access to government information, and we have encouraged the Federal Government to make use of the new electronic technologies to assist in that improved access. But even though the Internet has grown increasingly ubiquitous, the Clinton administration has done little to make access easy for the average citizen—until now.

FirstGov is an enormously important first step, actually a giant leap, in harnessing newer information technologies to make the Federal Government more accessible to the public. We applaud Dr. Brewer for his commitment to democracy and information access, and we applaud the administration for listening to and responding to our criticisms during the developmental stages of FirstGov.

We also wanted to recognize, as Ms. Katzen did, that FirstGov is built on the significant groundwork that was undertaken for several years under the auspices of WebGov, an effort with appreciable input from many people both inside and outside the government.

While credit should be given to the President for his leadership and his team for getting the task done, this should, as others have noted, be recognized as a first step. Our submitted testimony describes improvements that still need to be made to FirstGov. In that, we also raise a number of important policy issues raised by FirstGov, including its relationship to the Federal Search Foundation, that have not been fully addressed and must be resolved.

Our review of the FirstGov site can be summarized as follows: The search engine is very fast and very impressive, but, as Mr. McClure noted, to get search results relevant to user requests often requires significant work. Indeed, we often found government information for which we were looking more easily through other search engines, and in some cases the information was not retrieved at all through the FirstGov search engine.

Second, the directory of topics is also a great first step but also needs significant work. The topics need refinement, and procedures for their being kept up to date need to be established. I know that OMB and GSA have some plans for this, but it can't depend just on what happens in the agencies.

The privacy statement on FirstGov is very clear and useful. Unfortunately, however, when you click on some other government

sites from FirstGov, cookies are being sent in a number of cases. Although OMB has issued guidelines, strong leadership is needed to help agencies uniformly comply with privacy protections. The details of some of those sites are in the printed testimony.

Opportunities for feedback for the public to comment on various aspects of obtaining government information are readily at hand. This is great. While these comments should prove very useful, there is still a need to conduct focus groups with different types of users to identify ways to improve the portal.

As has been noted and will be talked about also by Mr. Bohannon—the subject of his testimony I have seen—the concept of certified partners were confusing in earlier presentations about FirstGov and is no clearer now that FirstGov is public. As the portal is now operational, that is, the rush to get it done in 90 days is over, GSA should not rush into these partnerships without public debate on what is to be achieved and what a partnership truly entails.

Some other issues about the site. Information about FirstGov itself should be improved, which could be done through FAQs—frequently asked questions. An example of useful information is how often spiders are set to crawl agency Web sites. The frequency determines how current information on FirstGov is at any point and very likely relates to a problem of phantom URLs that we and others have encountered. Also, there are questions of what are the criteria for establishing links; what the criteria for establishing the priority of what appears as search results.

As I have said, the Web portal is a major accomplishment. However, there are a number of major policy issues created or highlighted that have been left unattended. These include, is a privileged relationship being created? This has been addressed by Mr. McClure, and SIIA will address it, and we share many of the concerns.

Access to what? FirstGov needs to address a number of access issues. It does not include an easy way to find current, timely information, as searches do not capture the context of important government data bases such as Federal Register and WAIS data bases. And it will not find nor will it notify users of the vast amount of government information that exists only in print, nor of the records of the Federal Government. FirstGov should be an important part of a comprehensive effort to maximize access to government information.

Permanent public access. FirstGov's ability to retrieve pages highlights the problem of Web pages that might be here today and gone tomorrow. It is possible that Fed Search's index data base could help facilitate permanent public access, but technology could not solve the policy problems that exist.

Privacy. As I have noted, a number of Web sites yield the cookies——

Mr. HORN. Ms. McDermott, we are going to have to bring the gavel down on the next three, and you are one of them, if we are going to get questions, because that's the only way we can get it.

They are all anxious to leave.

Dr. MCDERMOTT. I understand. I thought I had it down to 5 minutes, but I didn't.

Mr. HORN. Well, thank you.

[The prepared statement of Ms. McDermott follows:]

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Statement of

Dr. Patrice McDermott
Senior Policy Analyst
OMB Watch

Before the Subcommittee on Government on Government Management, Information, and Technology of the Committee on Government Reform

on

FirstGov

October 2, 2000

Thank you for the opportunity to testify today on FirstGov, the federal government's new web portal.

My name is Patrice McDermott, and I am a policy analyst at OMB Watch, a nonprofit research and advocacy organization that works to encourage a more open, responsive, and accountable federal government. OMB Watch has not received any federal grants or contracts in the current and two preceding years, nor are we representing any entity today that has received such funds.

For more than15 years OMB Watch has been calling for improved public access to government information. And we have encouraged the federal government to make use of the new electronic technologies to assist in the improved access. But, even though the Internet has grown increasingly ubiquitous, the Clinton Administration had done little to make access easy for the average citizen—until now.

FirstGov is an enormously important first step—actually a giant leap—in harnessing newer information technologies to make the federal government more accessible to the public. We applaud the Administration for listening to and responding to our criticisms during the developmental stages of FirstGov. And we want to recognize that FirstGov is built on the significant groundwork that was undertaken for several years under the auspices of WebGov, with significant input from many people both inside and outside the government.

While credit should be given to the President for his leadership and to his team for getting the task done, the web portal should be recognized as a *first* step. Our testimony describes improvements that still need to be made to FirstGov. Moreover, we raise a number of important policy issues raised by FirstGov—and its relationship with the Federal Search Foundation— that have not been addressed and must be resolved.

Our review of the site can be summarized as follows:

- The **search engine** is very fast and impressive, but to get search results relevant to the user request often requires significant work. We found the government information for which we were looking more easily through other search engines (and in some cases the information was not retrieved through FirstGov's search engine). The impressive aspects of the search engine will be diminished if relevance of search results is not improved.

- The **directory of topics** is also a great first step, but also needs significant work. We think government can learn much from the Open Democracy Project (www.dmoz.org) spearheaded by Netscape. The topics need refinement and procedures for being kept up-to-date.

- The **privacy statement** on FirstGov is very clear and useful. Unfortunately, however, when you click on some other government sites from FirstGov, cookies being set in a number of cases. Although OMB has issued guidelines, strong leadership is needed to help agencies uniformly comply with privacy protections.

- **Opportunities for feedback** from the public to comment on various aspects to obtaining government information are readily at hand. While these comments should prove very useful, there is still a need to conduct focus groups with different types of users to identify ways to improve the portal.

- The concept of **Certified Partners** was confusing in earlier presentations about FirstGov and is no clearer now that FirstGov is public. The web site provides virtually no information about Certified Partners. As the portal is now operational (i.e, the rush to get it done in 90 days is over), GSA should not rush into these partnerships without public debate on what is to be achieved and what a "partnership" truly entails.

- **Other Issues.** Information about FirstGov itself should be improved, which could be done through the FAQs. An example of useful information is how often spiders are set to crawl agency web sites. The frequency determines how current the information on FirstGov is at any point and very likely relates to a problem of "phantom URLs that we and others have encountered.

As stated above, the web portal is a major accomplishment and the Clinton Administration should be justifiably proud of it. At the same time, there are major policy issues created by FirstGov that have been left unattended. These include:

- **Who "owns" the indexed database?** FirstGov's search function is performed through a charitable organization called the Federal Search Foundation, commonly referred to as Fed-Search. Fed-Search has contracted with Inktomi to provide the search engine services, which includes a massive indexed database that makes it incredibly fast to retrieve search results. Can the government direct Fed-Search (and its partner Inktomi) to make the index database available to anyone it chooses? And if not, doesn't this give Inktomi a procurement advantage, even though GSA says otherwise? These questions have not been answered.

- **Access to What?** FirstGov still needs to address a number of access issues. For instance, it only searches on .gov and .mil domain extensions. It does not include an easy way to find current, timely information. Its searches do not capture the contents of important government databases, such as the Federal Register and WAIS databases. And it will not find nor notify users of the vast amount of

government information that exists only in print or as records of the federal government. FirstGov should be an important part of a comprehensive effort to maximize access to government information to make it useful and meaningful.

- **Permanent Public Access.** The growth of the Internet and agency reliance on web pages for dissemination of information raise major concerns about the compliance with policies regarding preservation of documents and permanent public access. FirstGov's ability to retrieve pages highlights the problem of web pages that might be here today, but gone tomorrow—what we have called "phantom URLs." Is it possible that Fed-Search's indexed database can help address permanent public access issues?

- **Privacy.** FirstGov has the potential to lead to improved privacy on agency web sites. Fed-Search is conducting a scan of its indexed database to ensure that individual privacy is being protected, and the Administration should be praised for promoting this effort. It also highlights failure of ensuring compliance with the President's directives and OMB's guidelines on the use of cookies on executive branch web sites.

- **Leadership and Coordination with Federal Agencies.** There has been a startling lack of leadership, starting with OMB, on information access issues. The FirstGov team should coordinate and collaborate more closely with the federal agencies, including the Government Printing Office. And the Administration should address how FirstGov fits into its overall strategy for providing access to information, including its relationship to the Government Information Locator Service and E-FOIA (particularly its requirement that agencies make available inventories of their major information systems and descriptions of these and of their records locators).

- **Linkage with State and Local Governments.** The focus thus far has been primarily on partnering with the private sector (e.g. certified partners). Much more needs to be done to engage local and state governments.

- **Adequate Funding.** Congress and the President must recognize that agency dissemination activities, including FirstGov, require dedicated funding. Too often it has been an afterthought.

The remainder of this testimony provides details on the above summary. It is divided in two parts—user feedback of the web site, and policy concerns.

FirstGov: A User's Perspective

Search engine. The Fed-Search search engine is extremely quick and produces voluminous amounts of information. Its success in pulling back information for the user needs to be replicated in the relevancy of material that is returned. The value of the search engine rests on returning information that is useful to the user.

To broaden our assessment of the relevancy of the searched, we asked colleagues about their experiences in using the search engine. One experienced librarian responded with the following reaction:

> "There are some elements of the organization of the site that may work well. However, as a heavy user of site search engines, I must say that I am not happy with the FirstGov search engine. I tried a variety of searches, and even though they show relevance ranking on the hit

> lists, I find that items listed at the top are seldom the items that should be there. For example, I searched for "Code of Federal Regulations" and went all the way to hit number 59 before finding the link that takes me to the main GPO Access CFR page. All the previous hits go to pages that refer me to the GPO Access site or give only excerpts of the CFR. GPO does have the appropriate meta data on the CFR page so that it should be given a high relevance ranking by a search engine configured properly."

We had similar experiences in doing searches. We wanted to find out how to apply for Food Stamps, for example. So we typed in the term "food stamps" in the search engine. We received over 12,000 hits, and after going through a number of the results, gave up without getting the information. (The good news is that the directory of topics on FirstGov had relatively easy to find information about how to apply for Food Stamps. More on this below.) By comparison, we typed "food stamps" on the Google search engine and had roughly 158,000 hits. The second item returned had information about eligibility and how to apply.

It is important to note that scrolling down the screen—under Related Links—got us more directly to the site about applying for this assistance. But the search result did not prioritize the relevant link either in position on the page or by highlighting it with color. A person should not have to be a skilled—or even experienced—searcher to obtain relevant results.

We also did a search for "Toxics Release Inventory" and "TRI." The number one hit under both searches took us to older 1996 data. Even after going through several pages of search results, we never found the most recent data on toxic releases from the EPA site (although we did find a complex search tool at the National Library of Medicine buried low in the search results).

We also searched on "Fed-Search" and "FirstGov." We found a number of references and links to slides of a PowerPoint presentation developed by GSA. But clicking on the links took us to a directory that did not exist any more. This is the phenomenon that we earlier called "phantom URLs." (More on this point under Permanent Public Access in the policy discussions below.) Within the first week of operation, the Fed-Search indexing database already appears out of date.

In addition, the same items that were listed with 99% relevancy were also listed with 97%, 94%, and lower percentages. In fact, we found the same documents accounted for nearly 10% of the search results.

We found the keyword search *directions* very helpful, particularly the search tips. (The Fed-Search web site indicates boolean searches are possible and described on the First-Gov site. But we couldn't find these instructions on FirstGov.) It appears that the search tips, however, are not yet implemented or that something is malfunctioning. For example, we searched the term Toxics Release Inventory with and without quotation marks around the terms. According to the search tips, putting quotation marks around the term means "you'll get results that contain only that exact phrasing. If you leave off the quotation marks, you'll get results that contain any of the words that you typed in." We received the same search results with and without quotation marks. We repeated the experiment with another search term and found no difference with using quotation marks. Some of the other search tips also did not work.

The search engine developed by Fed-Search is a significant contribution and a great user tool. It is fast and impressive. Clearly, though, the search engine needs major improvements in ensuring that information retrieved is relevant to the user request. One key element is to develop an underlying thesaurus and taxonomy to insure that the user is getting closer to the information he or she wishes. Such tools should be linked to applications that help make searches context sensitive, such as through natural language or other applications.

Directory. The directory of topics is very thoughtful and makes good use of the work that the agencies and GPO have been doing in making information accessible. Thus, for example, in our search of how to apply for Food Stamps described above, we clicked on Agriculture/Nutrition on the topic list, then clicked on "food." After scrolling down the screen to "Related Links," we found and clicked on the topic "Food Stamps" and were linked to a page identifying a toll-free phone number to call to get information about applying for Food Stamps. There was also a link to online information about eligibility and how to apply. Information on multiple ways to apply is a critical recognition of the fact that someone sitting in a public library finding this information might not want to—or be permitted to—transact an application online.

Transacting Online. We found a "performance" section near the bottom of the FirstGov home page link to "Transacting Online" that was extremely useful. It provides access to selected government databases, including:

> Compare Nursing Homes—provides detailed data on Medicare and Medicaid certified nursing homes in the U.S.;
>
> Compare Medicare Health Plan Options—compares the premiums and benefits of Medicare health plans offered in geographic areas selected by zip code or state;
>
> Find Airlines with Best On-Time Records—compares quality of service offered by American air carriers;
>
> Check Airport Status—checks up-to-the-minute information for weather-related delays at forty major U.S. airports;
>
> How Clean is Your Neighborhood—allows you, through EPA's Envirofacts, to enter your zip code to get local information on drinking water, Superfund sites, air pollution, toxic releases, hazardous waste and water discharge permits;
>
> Check the Air Quality Where You Live—provides, through EPA's AIRNOW, real-time air pollution data in an understandable, visual format; and
>
> Check the Economic and Demographic Facts for Your County—provides economic and demographic information for any state or county in the United States.

We would recommend that these great "performances" be expanded and elevated on the site so that users can easily spot the service. They might also be listed on the topics list. We would also suggest that the numbers be expanded and possibly linked to performance measures identified under the Government Performance and Results Act. GPRA requires performance objectives to be verified and validated. A great way to insure verification and validation is to make the data publicly accessible.

The topic list on FirstGov is an incredibly important tool, but it need to evolve to have topics that are relevant to the types of searches and needs that users identify.There are many ways to do this, but we have been impressed with the model established by the Open Directory Project (www.dmoz.com), which was spearheaded by Netscape and is used by such sites as HotBot, Lycos, and AltaVista. This project relies on more than 29,000 volunteer editors worldwide who have indexed more than 2 million sites in nearly 300,000

categories. It has produced well-organized lists of pertinent sites, with clear descriptions of each link. And, of course, the links must be kept up to date.

The government, working in collaboration with state and local governments, could establish a tremendous base of "volunteer" editors to establish the same well-organized list of topics and links as Open Directory. This might be spearheaded by GSA along with government librarians who are already quite familiar with cataloging techniques. And those librarians who are part of the GPO's depository library system represent an additional pool of talent, knowledge and interest.

Criteria for creating links is a further key step in improving the directory. The home page, for example, provides a link to information for government contracts. That link goes to Fed Biz Opps, even though CBDNet, operated by GPO, contains more information. Who decides what gets linked to? Additionally, some topics provide links to non-governmental sites. Who decides whether to permit such links?

The improvement in the directory, along with insuring greater relevancy in search results I through the search engine, are the two most significant improvements that need to be made from a user's perspective.

Privacy. FirstGov provides a very clear, simple to understand privacy statement. It is useful that the statement includes the notice that "Once you link to another site, you are subject to the privacy policy of the new site." Although the FirstGov privacy statement concludes with the warning about outside links, this warning only appears in small, easily missed print on returned-search pages. It would be useful for a interim page—commonly used in government agencies and across the Internet—to appear when a user links to a non-governmental or non-federal government site, saying that the user is now leaving the federal government pages, etc.

Moreover, there needs to be strong, clear defined leadership to insure that intrusions on user privacy, such as tracking users through cookies, will not be tolerated on government sites, except in specifically defined—and agreed to—circumstances. However, some government sites returned on FirstGov search results set (or attempted to set) cookies. These sites included: pesticide data, Medicare nursing home comparisons, an army site that lists groups; a child statistics site; and a Bureau of Labor statistics site. Given the diversity of these sites, this problem may prove to be widespread and would seem to indicate a failure in compliance with the President's directives and OMB guidelines.

Feedback. FirstGov's efforts to obtain user feedback on a variety of issues are laudable (although we have heard some user complaints about the levels of pages they felt they had to go through). We hope the President's Management Council has a process in place for reviewing feedback and incorporating useful comments, and for sharing them with the relevant agencies. [ADD FOCUS GROUPS]

FirstGov Certified Partners. The concept of Certified Partners was presented in a July 17th GSA PowerPoint presentation (see Attachment A), describing a vision of the web portal, posted on the FirstGov web site. The vision for Certified Partners was that they "will provide familiar as well as innovative approaches to finding federal information. With access to the entire Fed-Search index in the Back Room, these partners can focus on tailoring the presentation of federal information to specific needs of their users."

GSA goes on to say:

> "Private company portals may use the FirstGov brand in exchange for meeting certain conditions. These portals will innovate to offer the best search environment to their customers.

Conditions (abbreviated description):

1. INTEGRITY: must use the government information "as is"
2. FREE ACCESS: must provide uninterrupted free access
3. PRIVACY: must not track visitor's movement to or through
4. NO ADVERTSISING (SIC): no banner ads; some institutional
5. POSITIONING: not associate with inappropriate content
6. ATTRIBUTION: must attribute to U.S. Government
7. ACCESSIBLE: must comply with Section 508"

The current FirstGov site provides virtually no information on how this concept has evolved, except to say it now includes nonprofits and academic institutions, along with commercial entities. The web site descriptions of the Certified Partners is as follows:

> "Making government easier and more accessible is at the heart of what FirstGov aspires to achieve. This will be best accomplished by the public sector and other organizations, who also wish to promote and accelerate electronic government. We expect partners to include the private sector, academia and non-profit organizations.
>
> If you are interested in applying for certification or would like more information on how to become an online FirstGov Certified Partner, email us at firstgov.partners@gsa.gov."

There have been discussions that Certified Partners will need to establish a license with Fed-Search to use the indexed database that is the basis for FirstGov's search engine. What this license entails (e.g., the cost, access rights, etc.) has not been clear – and it raises a number of policy questions (see below) about who owns the indexed database.

The Certified Partner concept needs greater scrutiny, clarity, and public debate. Until this has been achieved it should not be pursued.

Other Points About the Web Site. *Currency of Information Posted.* The site provides little information about FirstGov itself. For example, how often are spiders set to crawl agency web sites? This is essential information for the public because it relates to the currency of the information available through FirstGov. For example, we searched for "poverty data" on September 26, the day the Census Bureau released 1999 poverty and household income data, and the following day, September 27. In neither search were we able to find the new poverty data (although we were able to find historical poverty data). By comparison, a private sector service—FedBuzz—which has launched GovWire had a link to the Census Bureau press release describing the data and providing links to the reports. We also searched for "poverty data" on Google and the first item returned was the Census Bureau's site with a link to the 1999 data. In other words, the information was on the Census Bureau web site in a timely manner, but FirstGov did not capture it. And it is likely that the public would not know to go to that agency's site to get the information. (Some of the problem may relate to the algorithms used in the search engine, but it is likely that time sensitive information is not getting indexed.)

The Browser Back Button. No matter how good FirstGov is, there will likely be some "sleuthing" involved in finding things in government. This means that the user is likely to click on a search result from FirstGov which, in turn, will require clicking on additional links. For example, we clicked on the topic "How Clean is Your Neighborhood" under the performance section described above. By the time we completed the searches on the EPA site, we had to click the back button on the browser more than a dozen times to get back to

FirstGov to do an additional search. This was not only annoying, it was time consuming. We would recommend that when you leave the FirstGov web site a new browser window be opened so that the user can easily get back to the FirstGov site.

Policy Concerns

1. **Who "owns" the indexed database?** Dr. Eric Brewer deserves credit for stepping up and providing the momentum, skills, and resources to help make FirstGov a reality. He has provided a real service and contribution to this country. At the same time, this wonderful offering has presented a series of policy questions that have not been adequately addressed.

As we understand it, Dr. Brewer has established the Federal Search Foundation, commonly called Fed-Search, as a charitable organization. He has stated repeatedly that the intent is to create the search engine, maintain it for a period of time, and transfer responsibility to the federal government. The Fed-Search web site and the Memorandum of Understanding (MOU) between GSA (for FirstGov) and Fed-Search indicate that this transfer of responsibility should occur within three years.

GSA has taken steps to help Fed-Search set spiders to crawl every publicly available web page in the federal government. Other attempts to crawl agency web sites to this level are blocked by agencies for a number of reasons, not the least of which is the burden imposed on machine resources. Fed-Search has put the information from its crawlers into a massive database and indexed it so that search results can be obtained with incredible speed. This database is clearly a value-added service.

This arrangement raises several policy concerns. First, is it now the government's policy to let anyone who wants to spider every federal agency web document do so? Will GSA help other entities get through agency blocks? Or does Fed-Search have a special relationship? If so, on what basis does Fed-Search have such a relationship? And what are the implications?

A second set of policy questions relate to who owns FirstGov? This seems easy to resolve. Everything on FirstGov is public domain, free, and accessible because it is owned by the federal government. However, a portion of the FirstGov site does not quite fit this model: the indexed database provided by Fed-Search, which is maintained by Inktomi. The indexing arrangements in that database are not public information; rather, those algorithms are central to the business operations of Inktomi. This would suggest that the Fed-Search database is owned by Fed-Search (with a close relationship to Inktomi).

GSA has obtained the services of GRC, Inc. through a two-year procurement to establish and maintain the FirstGov web site. GRC and its partners are not responsible for the search engine; Fed-Search is. Fed-Search has contracted with Inktomi to provide the search-engine services. Although Dr. Brewer is a co-founder and chief scientist at Inktomi—as well as the founder of the Federal Search Foundation— the Fed-Search web site states:

> "In the memorandum of understanding between Fed-Search and the U.S. General Services Adminstration (GSA,) it is explicitly provided that Inktomi will get no business advantage from the work it is doing for Fed-Search. Specifically, Inktomi will get no advantage in the procurement competition GSA will run to find a company to succeed Fed-Search in providing a search engine for the FirstGov.gov site."

However, the MOU adds: "It is the parties' intent and expectation that nothing in this MOU shall preclude

either Inktomi... from competing in the successor procurement." The MOU stipulates that if Inktomi "or some other party operating under license from Inktomi" wins the award, all services "will remain intact and connected to Inktomi." If someone else wins the award, "the connection to Inktomi will be disconnected and the servers will be purged of software and data prior to donation to GSA."

Can the government tell Fed-Search that it wants anyone to have access to the indexed database, such as Certified Partners or others? Can the government make the indexed database public domain and open-source? More directly, can the GRC contractor or one of its partners expert on improving search relevancy, such as Autonomy, be given access to the database to improve the search mechanism? Who has the authority over the database, GSA or Fed-Search?

This problem could more easily be resolved had GSA procured the services of a company—such as Fed-Search, Inktomi, or Google—to create a public domain indexed database. As a public service, GSA would spider agencies regularly to keep the database up-to-date. This would negate the necessity of Certified Partners since anyone, including FirstGov, could use the indexed database. This public domain model has the added advantage of reducing stress on agency machines as there would be no need to crawl agency sites. Instead, the information could be obtained through the main indexed database at GSA. This was not, however, the path chosen, so the policy questions must be confronted and resolved. We strongly urge this public domain model be incorporated into the successor version of the search engine and FirstGov.

Third, notwithstanding the statement that Inktomi will get no advantage in GSA procurement competition, won't it clearly have an advantage? If the indexed database is in an Inktomi proprietary system, doesn't this give them an edge? GSA said at the press conference launching FirstGov that moving from one indexing system to another is a non-problem, but the technology experts with whom we have spoken do not concur. Moreover, if Certified Partners create a licensing arrangement through Fed-Search for use of this proprietary database, doesn't that give them a market advantage? Finally, Fed-Search offers federal agencies free direct access to the indexed database. But the agency must first be approved by FirstGov and then agree to a "Mutual Confidentiality Agreement" with Inktomi before Fed-Search will help them. Doesn't that help migrate the Inktomi proprietary system throughout government?

A cynic might argue that the donation of the search engine to FirstGov is a smart marketing ploy by Inktomi to grab a huge potential market. But we have met Dr. Brewer and know that is not his intent. He is making an honest philanthropic contribution to the government with the hopes of improving public access to government information. Yet unless these issues get resolved his good intent may led to a bad outcome.

These issues need to be resolved in a manner that assures that there is no violation of the Paperwork Reduction Act and its requirement for a diversity of sources. The resolution must also be responsive to the philanthropic endeavor provided by Dr. Brewer.

2. **Access to What?** FirstGov has made great strides in making millions of web pages publicly accessible. But as the Fed-Search web site notes, FirstGov does not address access to information that is not on web sites already. FirstGov also only searches on .gov and .mil domain extensions. Searches conducted through FirstGov will not, for the most part, find print publications of the federal government—unless they have been catalogued under GPO's Superintendent of Documents system or those rare cases that have had GILS (Government Information Locator Service) records created. As OMB has neither obliged agencies to comply with their obligations to make publications part of GPO's depository library system not to oblige (or assist) them to comply with the GILS requirements of the Paperwork Reduction Act, much government information of importance and use to users will not be identified through FirstGov.

Even for the information it searches, FirstGov does not provide an easy and sure way to find current information (see the poverty data example above). It would be helpful for FirstGov to include a search of agency press releases or a topic for current agency releases. If this proves too daunting, GSA could contract with an existing service to add the FirstGov web site.

And FirstGov does not address access to databases in our government, although it may provide a link to the availability of certain data. This means that searches on FirstGov do not capture information found in the *Federal Register*, for example. Information stored in WAIS databases, such as some of the information housed at GPO, will not be accessible to FirstGov searches, but will be through searches on GPO Access. But most users would not know that.

A comprehensive look is needed at how to maximize access to government information—both paper and electronic, publication and record of government activity—and a plan for achieving meaningful access needs development. It certainly would be helpful for FirstGov to provide new, innovative services, such as electronic request forms for information identified by but not accessible through FirstGov. FirstGov should also alert users to the possible existence of government records pertinent to their interests. This awareness on the part of the public may require government to begin to take governmentwide electronic records management seriously and to begin to consider how to un-stovepipe records identification so that something like an electronic Freedom of Information request—that did not require the user at least initially to know in which agency relevant records might have been created—might be a possibility. Ideally, of course, FOIA requests will truly become a last resort. As a minimal first step, agencies should be strongly urged to comply with the requirements of the E-FOIA, particularly its requirement that agencies make available inventories of their major information systems and descriptions of these and of their records locators.

While improved coordination within and across the federal government and modest expenditures could resolve some of this, a much bigger issue is at stake: how to improve access to electronic information, particularly databases, in our government. FirstGov plays an important role in helping to direct people to such services as EPA's Envirofacts so that they can conduct searches about toxic chemicals in their communities. But FirstGov would be far more useful and powerful if searches on key governmental databases could be done directly from the FirstGov site and cut across multiple agency databases.

The President's Information Technology Advisory Committee PITAC) on August 31st released its report "Transforming Access To Government Through Information Technology" which highlights findings and recommendations for both improving public access to Federal information resources and simplifying internal and external government transactions. A key PITAC finding is that "major technological barriers prevent citizens from easily accessing government information resources that are vital to their well being. Today government information is often unavailable, inadequate, out of date, and needlessly complicated." Regarding FirstGov, they note that the currently envisioned project "does not provide for information integration or federation, nor does it require standardization among agencies." "Firstgov.gov should focus efforts on government-specific capabilities such as transaction support, metadata creation, and comprehensive searchable catalogs of information and services."

More broadly, FirstGov presents a new opportunity to get a crosscutting look at issues. FirstGov plays an important role in helping to direct people to such services as EPA's Envirofacts so that they can conduct searches about toxic chemicals in their communities. But FirstGov would be far more useful and powerful if searches on key governmental databases could be done directly from the FirstGov site and cut across multiple agency databases.

Ideally, by typing in your zip code on the FirstGov site, the user could select types of information they are interested in and then map it. The data used in the mapping might be housed at EPA, OSHA, HUD, and other agencies. Clearly, this type of effort will not happen overnight and cannot happen without strong leadership. It requires experimentation with distributed databases; it assumes that regulated entities will be assigned identification numbers to designate corporate ownership and individual facilities (similar to our tax ID numbers); it assumes certain standards will be set; and it assumes coordination and collaboration among the agencies. None of this, though, can be done without leadership.
The problem is that there no plan or discussion of a plan to develop an approach to maximize public access. Part of the problem is lack of leadership, discussed below.

3. **Permanent Public Access.** Agencies across all three branches of government have discovered that the Internet is a cost-effective means of making current information products and services more readily available to the public. FirstGov promises to fulfill one of the three key challenges of the rapidly changing e-government world by helping citizens locate the government information they need to start up a new business, to get important health information, or to research environmental laws over a particular time period. However, two critically important digital challenges remain unresolved: continuous, long-term access to this digital government information accessible on an estimated 20,000 agency web sites, and its preservation.

The federal government is responsible for permanent public access and preservation of its electronic information. Government information is part of our nation's heritage and history. It documents the rights of our citizenry, tracks the activities, decisions and responsibilities of our government, and provides the means for government accountability. Unfortunately, as we transition to a more electronic government, agencies are failing to plan for the complete life cycle of their digital information—from its creation to provision, in the case of government records for their orderly and documented disposal, and in the case of publications their permanent preservation and provision for ongoing access. Few agencies understand the concept of permanent public access, that the digital information posted to their website today that is of long-term value must remain available to the public and must be preserved.

Users of government information often revisit an agency website where they have bookmarked a URL, only to discover that the digital information or data they may have used just a few months ago has disappeared. In some instances, the user may be lucky and can find the same information in a print document, perhaps at a local depository library. But very often it disappears for good because it was produced and disseminated *only* in a digital format, and the agency—or just as likely, the congressional committee or the court—has decided that the information is no longer of value to the public. We suffer today from a lack of government information policy, guidelines or standards even at the agency level, not to mention across all three branches of government, that will ensure permanent public access to web-based government information. The lack of standards causes problems for current access, as well as for preservation and permanent public access. These important concepts must be addressed and should be part of every agency's overall information life cycle management system.

The advent of FirstGov will likely highlight these unresolved challenges and lay them exposed, as users more easily find the government information they need on an agency website only to return at a later date to discover that it has disappeared. Indeed, as we have documented above, it is already occurring. The ensuing frustration may even unleash public complaints directed at agencies that fail to provide continuous and permanent access to a particular information product or service. The fact that this Administration over a 90-day period has produced the new FirstGov service is a big step in the right direction and gives us hope that there will follow a substantial effort towards resolving the digital dilemmas of permanent public access and

preservation.

We're at risk of losing our national heritage, as countless valuable publications have disappeared already off agency, congressional and court web sites. Our government must find the means, particularly now with development of FirstGov, to ensure that the digital information the public locates today remains continuously available to present-day users and will be preserved for and accessible to future generations.

4. **Privacy.** On September 20, a few days before FirstGov was unveiled, the Privacy Subcommittee of the Federal CIO Council sent a warning to agencies to be sure that none of the web sites being indexed by Fed-Search contain sensitive information about individuals that raise privacy concerns. The MOU between GSA and Fed-Search also emphasizes the importance of privacy protections. Although Fed-Search is not responsible for any violations of privacy rights, it has agreed to do an active scan of the indexed database to ensure that individual privacy is being protected. We applaud the Administration for this effort.

Additionally, it is very important for the Administration to enforce a policy of not setting cookies, except in specially defined cases. The fact that we found a number of cookies being set on a small random sample may indicate a larger problem.

5. **Policy Leadership.** Our hope is that FirstGov will renew and propel government initiative in setting policies, procedures, and standards governing the posting of public information to agency web sites. Such policies as exist, while they may be commendable, have not been evaluated, updated, or enforced. Agencies are often left without the resources or guidance to handle public access issues, but many have simply not placed a priority on public access. The heart of the problem, however, rests with a lack of leadership, starting with OMB.

The FirstGov team was under enormous pressure to develop the portal within 90 days. As a result, some important steps may have been missed. As the project moves forward, though, it would be helpful to have the FirstGov team coordinate and collaborate more closely with the federal agencies, including the Government Printing Office.

Improved coordination and collaboration will make it easier to pursue the policy leadership that is needed. For example, the Administration should be looking at how FirstGov should relate to the Government Information Locator Service. Is the Administration committed to GILS, even with the advent of FirstGov? If so, should the Fed-Search indexed database help to create GILS records for the agencies? As noted above, the possibilities that FirstGov creates in relation to E-FOIA need to be explored and agencies need to be strongly urged to comply with the requirements of the E-FOIA amendments..

6. **Linkage with State and Local Governments.** Considerable energy has been placed on partnerships with the private sector (e.g., Certified Partners). We would encourage the President's Management Council and GSA to shift their energies to identify ways of improving linkages with state and local governments. FirstGov takes a first step in this direction by providing links to other sites that emphasize state and local linkages. But more needs to be done. Currently, FirstGov does only a mediocre job of providing state and local government information. For example, we searched for a county with a web site and never found it.

7. **Funding.** It is very important that Congress begin to recognize that federal agency dissemination activities, particularly through the Internet, require dedicated funding. Public access is not something agencies can do simply as an afterthought—too much is at stake. The President should be including line items for public access in every agency budget—perhaps part of what agencies collect in the fulfillment of

FOIA requests could be maintained by the agency, or go into a fund, earmarked for public access—and ensure that adequate resources are available for fully developing and maintaining FirstGov. Of course, with public funding comes accountability.

We also encourage Congress to consider whether the Paperwork Reduction Act should be modified to authorize FirstGov and to identify how it should relate to other agencies and to other initiatives, such as GILS.

Conclusion

Our critique of FirstGov should not diminish this very important first step. The creation of a government web portal—an easy to use one-stop—is an essential component of democracy in the electronic age. The very fact that we are describing ways of *improving* the service is a testimony to its initial success. Having said this, however, it is essential that FirstGov rapidly work on improving the relevancy of search results, and launch a more thoughtful approach to establishing topics and keeping them up-to-date.

Our greatest criticism is the lack of policy leadership on public access issues. There are significant policy issues created by FirstGov and its relationship with Fed-Search. Moreover, FirstGov exposes a number of gaping policy problems dealing with what content is made available to the public, how web pages and other electronic documents are permanently accessed and preserved, and how to improve coordination with local and state governments, as well as federal agencies.

We would like to see OMB or another office take the leadership responsibility that has been missing and move the government forward to strong, meaningful and permanent public access to government information.

ATTACHMENT A

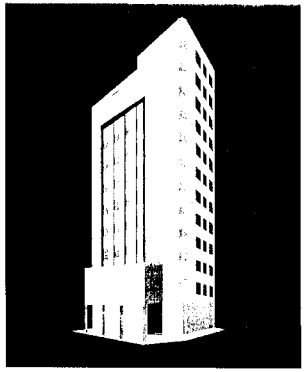
First Go

What it is and how it works.

First Gov

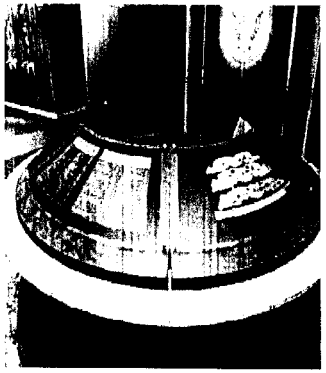
A metaphor: A Skyscraper & Its Lobby

The Information



It's in the skyscraper

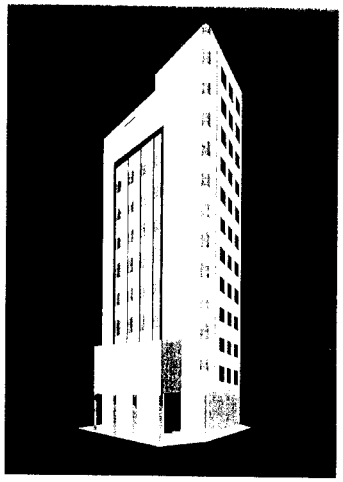
How to get to it



Go to the lobby first

First Gov

Where is government information?



Imagine all the government's information being in various rooms in a skyscraper.

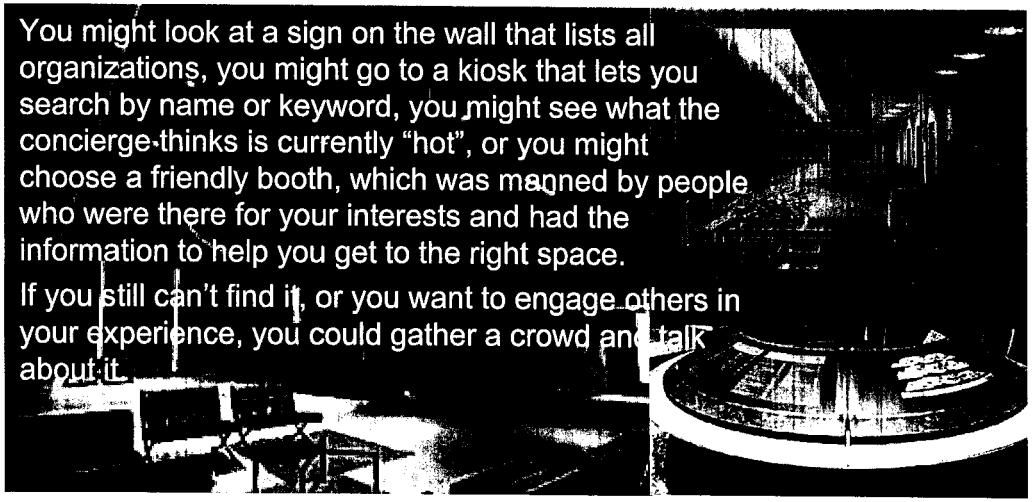
It is an imposing task to find any particular piece of information, so we'd like to make it accessible, even inviting.

If you know exactly where it is, you can go directly to that floor, that office.

If not, we're here to help.

First Gov

The Lobby: a good place to start



First Gov

Making information easy to find

That's the metaphor. The following slides describe how it will work.

Remember one thing: FirstGov will help you get started and be your refuge if you get lost. And, it will provide answers to some some obvious queries. But, the government's web pages are hosted and managed by the federal agencies, who will welcome FirstGov having helped you navigate to their web site.

First Gov

The 3-Facets of FirstGov

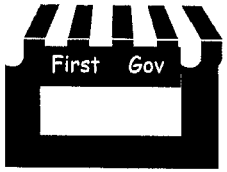
The Front Lobby

The citizen's first entry to FirstGov.

The Back Room

Where copies of the government's web pages are stored to enable rapid searches.

The Brand



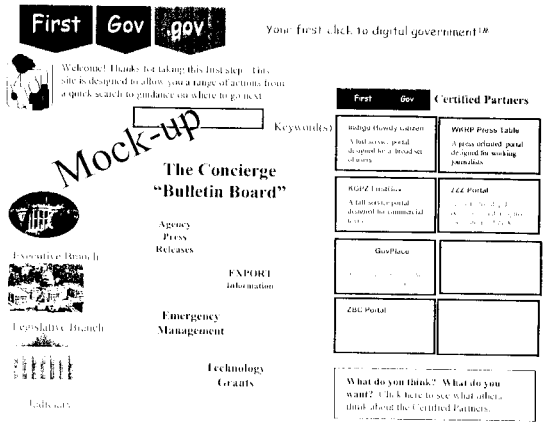
How commercial search portals get "certified"

First Gov

The Front Lobby ... First Gov gov

The citizen's first entry to FirstGov

The FirstGov.gov page will look something like this "mock-up."



more description to come ...

First Gov

Let's digress for a moment …

We saw the Lobby (First Gov .gov).

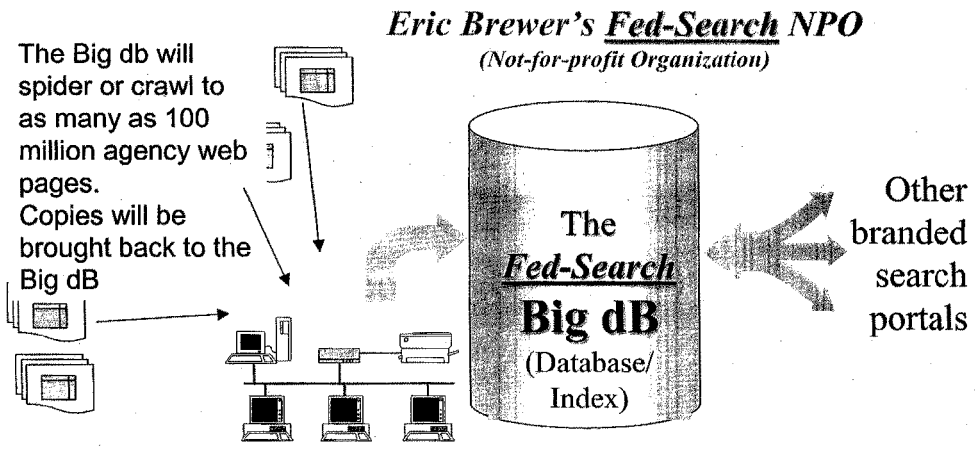
There is also a very important "Back Room" where information from all those floors, rooms, file spaces is kept. Let's look in.

→

First Gov

The Back Room *(Fed-Search)*

Where copies of the government's web pages are stored to enable rapid searches.



... see slides 19-23 for a description of how commercial web searches work and how FirstGov searches will work.

First Gov

One more digression …

Along with the Lobby (First Gov .gov) and the ***Fed-Search*** Back Room, this whole **FirstGov** concept will use a unique branding approach.

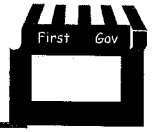
We expect private sector partners to operate their own portals that will be permitted by the government to use the **FirstGov** brand.

Here's how that will work. →

First Gov

The First Gov Brand

How any search portal gets certified to provide assurance to users



First Gov™ Certified Partners

Simply Examples

Imagic Howdy Citizen

A full-service portal designed for a broad set of users

WKRP Press Table

A press-oriented portal designed for working journalists

KGPZ FirstGov

A full-service portal designed for commercial users

JAJoo GovPlace

A ased sdfl sflkjsd lklksdlf portal designed for asdfdsj asdfdjjlk.

Private company portals may use the FirstGov brand in exchange for meeting certain conditions. These portals will innovate to offer the best search environment to their customers.

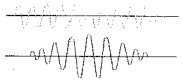
Conditions (abbreviated description):

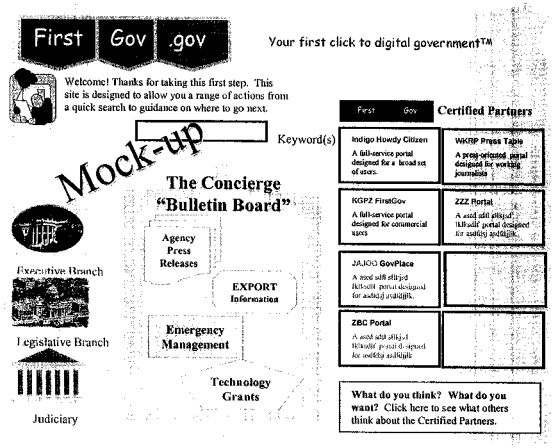
1. INTEGRITY: must use the government information "as is"
2. FREE ACCESS: must provide uninterrupted free access
3. PRIVACY: must not track visitor's movement to or through
4. NO ADVERTSISING: no banner ads; some institutional
5. POSITIONING: not associate with inappropriate content
6. ATTRIBUTION: must attribute to U.S. Government
7. ACCESSIBLE: must comply with Section 508

First Gov

The Front Door *The citizen's first entry to FirstGov*

To get to FirstGov, users simply type FirstGov and get to the main portal. Then, they can choose from several options.*





* Users may also type FirstGov.gov or Firstgov.net or .org or .com and get to the main portal.

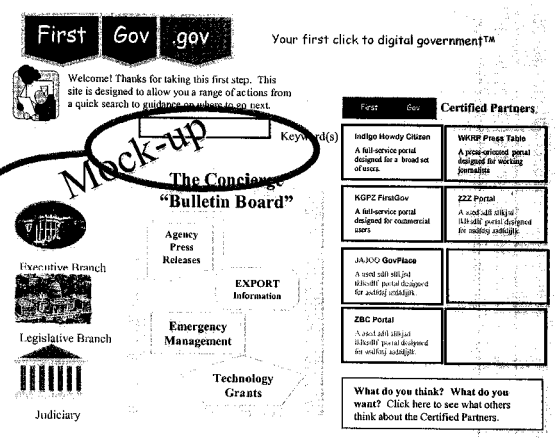
First Gov

The Front Door *The citizen's first entry to FirstGov*

Keyword Search

One option is a simple, classic keyword search, which will be done on the Big dB. Results will be returned in the familiar form.

Keyword(s)



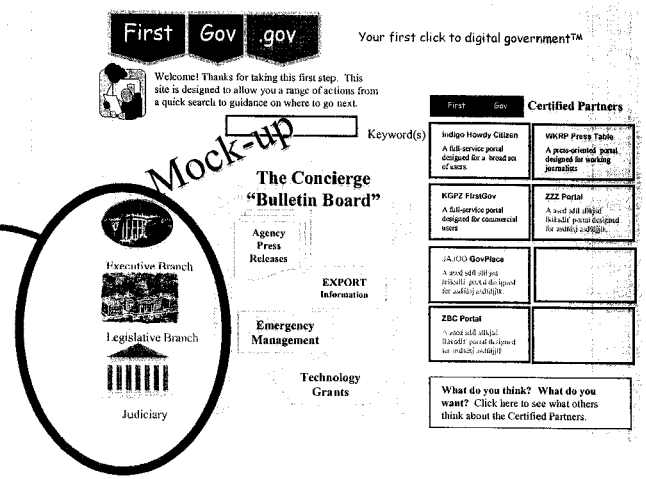
First Gov

The Front Door *The citizen's first entry to FirstGov*

Pointers to a few Big Places

Another option is a simple set of buttons to take the user to the Legislative, Executive or Judiciary sites.

These sites would be maintained by the "owner." As an example, the WH could maintain the Executive site, Thomas could be the destination when the user clicks on "Legislative Branch."



First Gov

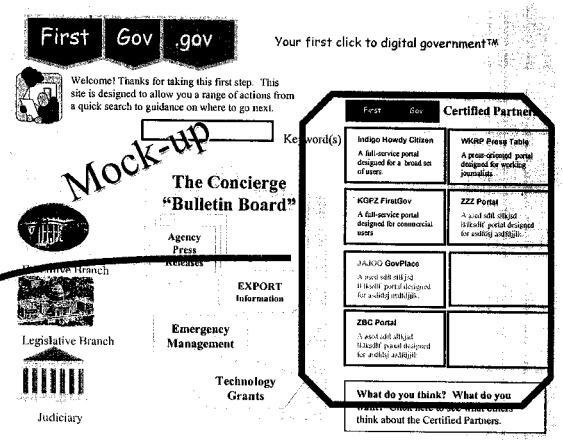
The Front Door *The citizen's first entry to FirstGov*

The Certified Portal Partners

Users can select a particular Certified Portal Partner from this list. These companies will have tailored their portal to support customer needs.

One or more portals could be general purpose sites.

Others could tailor their look and feel and their content to specific constituencies.



First Gov

The Front Door *The citizen's first entry to FirstGov*

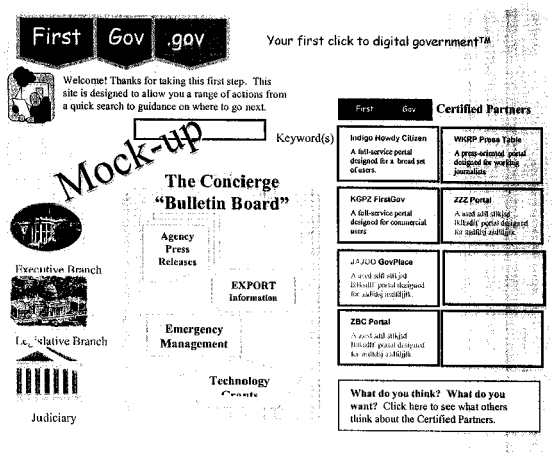
The Feedback Section

*"Learning in the Internet age means **you** are **in charge** of it."*

Users will be able to learn from others and provide comments about all aspects of the site.

The FirstGov team will moderate the online discussions.

Partners, users, and agencies will be responsible for responding to useful criticism.



First Gov

The Front Door *The citizen's first entry to FirstGov*

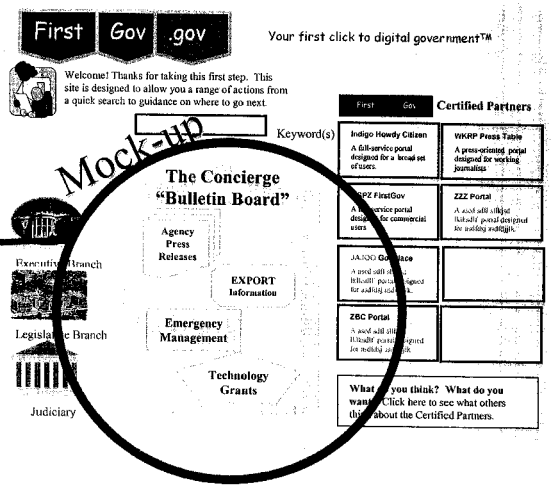
The Concierge Bulletin Board

The Concierge will periodically select topics or subjects of special interest.

One button could take the user to a site where all agency press releases had been listed.

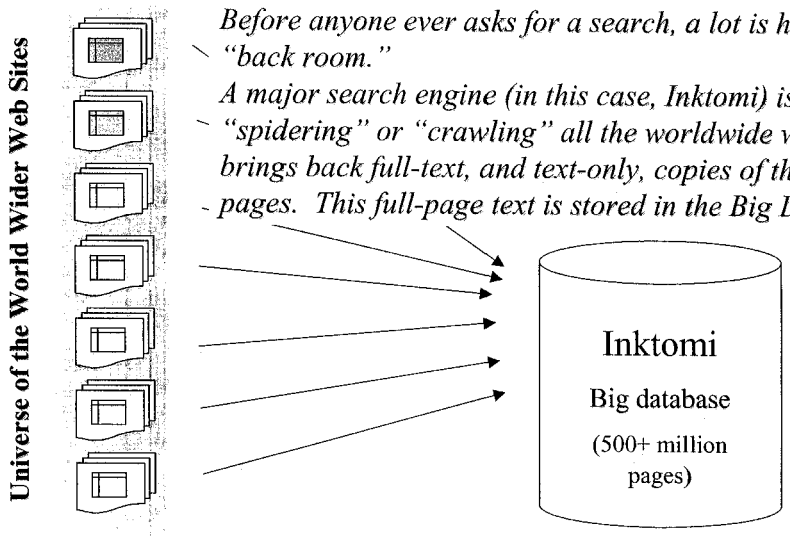
Another could take you to a site where information for a particular emergency was listed.

Another could have collected useful information about exporting products.



How Searches Work (next 6 slides)

A Typical Commercial Web Search Sequence

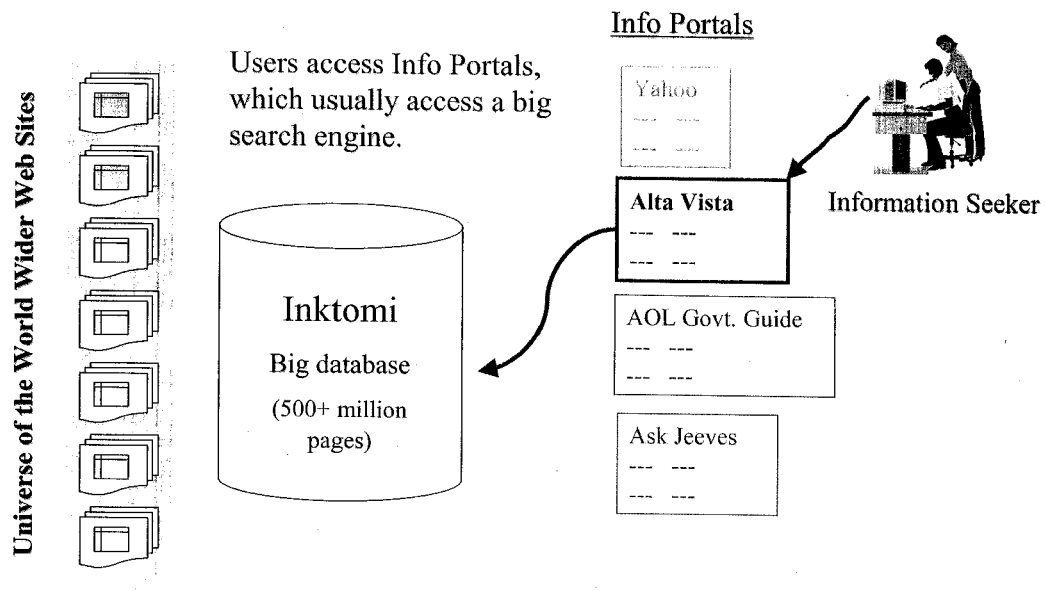


Before anyone ever asks for a search, a lot is happening in the "back room."

A major search engine (in this case, Inktomi) is out there "spidering" or "crawling" all the worldwide web sites. It brings back full-text, and text-only, copies of the sites' web pages. This full-page text is stored in the Big Database.

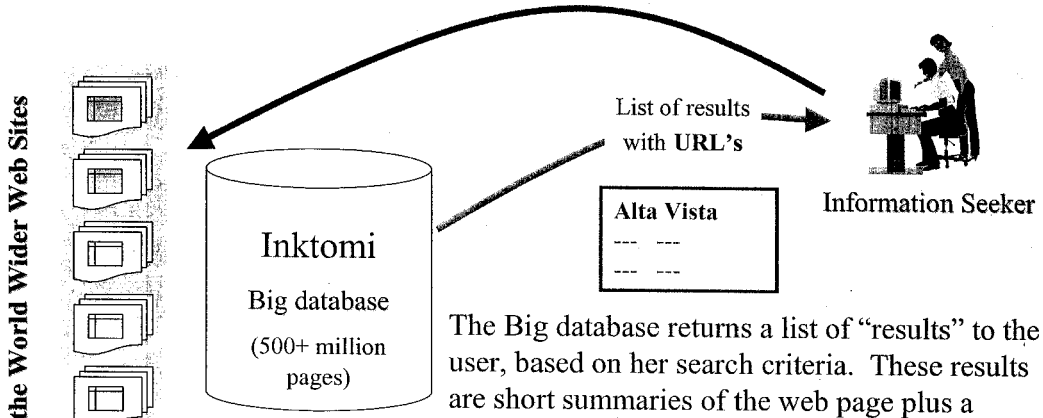
How Searches Work

A Typical Commercial Web Search Sequence



How Searches Work

A Typical Commercial Web Search Sequence



The Big database returns a list of "results" to the user, based on her search criteria. These results are short summaries of the web page plus a "URL", which is the *address* of the original web page.

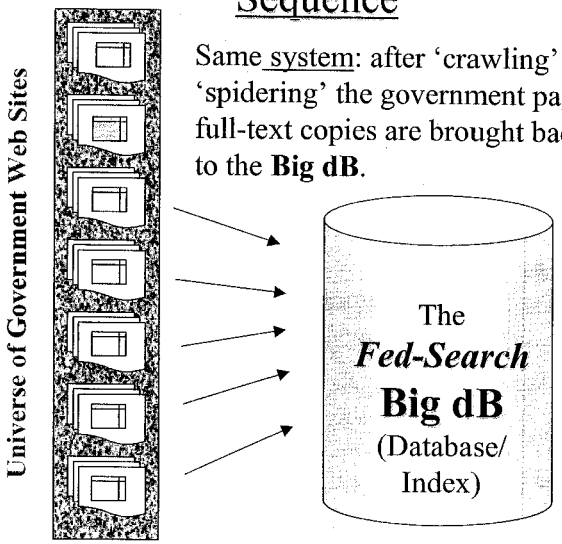
When the user selects a "result" and clicks on the URL, she goes directly to the site of the original web page and this page shows up on her screen.

Now the user is directly connected to the original web site.

How Searches Work

A Typical **FirstGov** Web Search Sequence

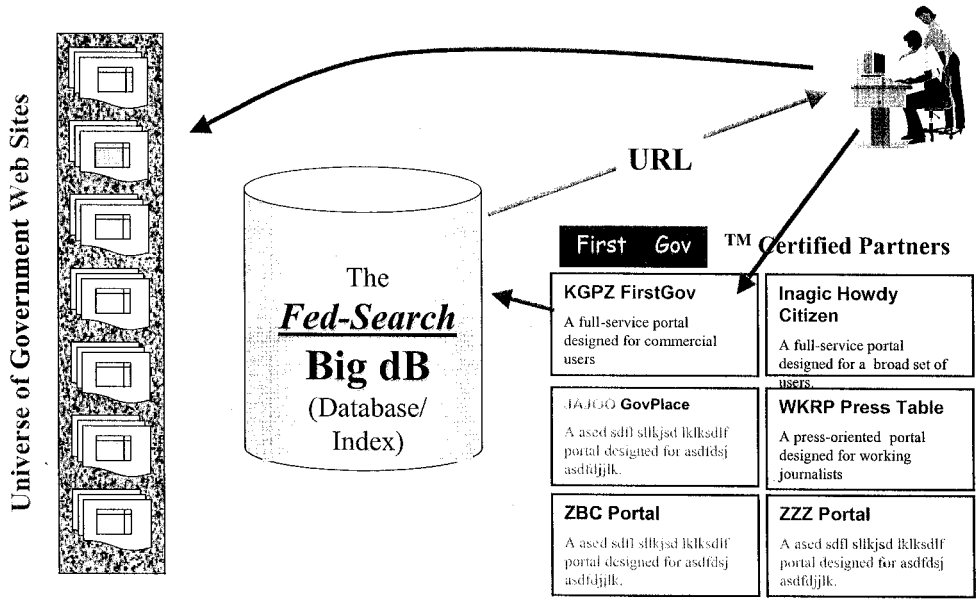
Same system: after 'crawling' and 'spidering' the government pages, full-text copies are brought back to the **Big dB**.



How Searches Work

A Typical **FirstGov** Web Search Sequence

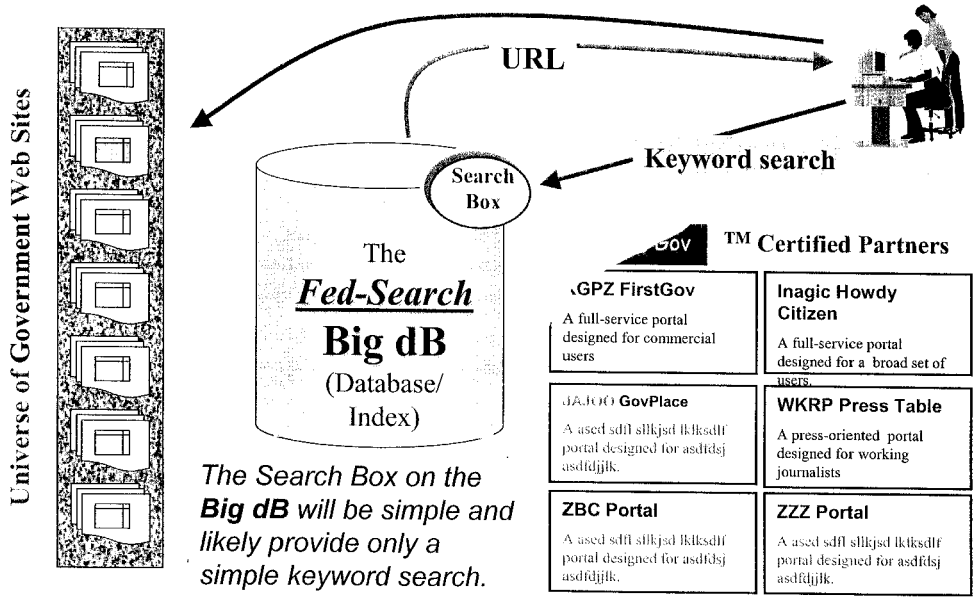
Same process: user gets results via a user-friendly portal.



How Searches Work

... *or* ...

An Alternate FirstGov Web Search Sequence



In closing: This is what the First Gov portal will look like.

First Gov .gov

Your first click to digital government™

Welcome! Thanks for taking this first step. This site is designed to allow you a range of actions from a quick search to guidance on where to go next.

Mock-up

Keyword(s)

The Concierge "Bulletin Board"

Executive Branch

Legislative Branch

Judiciary

Agency Press Releases

EXPORT Information

Emergency Management

Technology Grants

First Gov ™ Certified Partners

Indigo Howdy Citizen A full-service portal designed for a broad set of users.	**WKRP Press Table** A press-oriented portal designed for working journalists
KGPZ FirstGov A full-service portal designed for commercial users	**ZZZ Portal** A ased sdfl sllkjsd lklksdlf portal designed for asdfdsj asdfdjjlk.
JAJOO GovPlace A ased sdfl sllkjsd lklksdlf portal designed for asdfdsj asdfdjjlk.	
ZBC Portal A ased sdfl sllkjsd lklksdlf portal designed for asdfdsj asdfdjjlk.	

What do you think? What do you want? Click here to see what others think about the Certified Partners.

Mr. HORN. Mark Bohannon—and we can get back to a lot of it afterwards. Mark Bohannon, general counsel and vice president, Software and Information Industry Association.

STATEMENT OF MARK BOHANNON, GENERAL COUNSEL AND VICE PRESIDENT, SOFTWARE AND INFORMATION INDUSTRY ASSOCIATION

Mr. BOHANNON. Thank you, Mr. Chairman and Mr. Turner, for the opportunity to testify today on the FirstGov project.

We do not come here today believing that either we have all the answers or that there is a one-size-fits-all solution to this tremendous challenge that Ms. Katzen, Mr. Barram, and Dr. Brewer are trying to undertake. Rather, our concern, which you find in our testimony and our recommendations, necessary steps to improve the project, are actually drawn from the unique vantage point of over 1,000 companies in 33 countries who are developing the backbone of access to the Web, developing unique applications that meet a variety of consumer, educational, business and governmental needs. Our members also include many of the longstanding publishers in the off-line and digital world. We are providing services and products that meet virtually every market and every area imaginable, including those incorporating information from government sources.

I also want to emphasize that the vision of e-government that has been discussed today, the longstanding policy of this administration and as reinforced by Ms. Katzen, is one that SIIA shares and is at the forefront of encouraging both in the digitization of government and in the provision of services.

We also want to note that we are very pleased that Director Sally Katzen has been given a leadership role in reviewing on a governmentwide basis all of these e-government initiatives, particularly looking at the possibility which we have growing concerns about, that there is increasing competition by the government in the provision of electronic and commerce service.

Mr. Chairman, Mr. Turner, we have stated our concerns on a number of occasions, and we would be glad to provide that information for the record.

In our prepared testimony for this hearing——

Mr. HORN. Without objection, that will be put in the record at this point.

[The information referred to follows:]

June 23, 2000

The Honorable Lawrence H. Summers
Secretary
U.S. Department of the Treasury
Washington, DC 20220

The Honorable Charles O. Rossotti
Commissioner
Internal Revenue Service
Washington, DC 20224

The Honorable Bruce N. Reed
Assistant to the President for Domestic Policy
The White House
Washington, DC 20500

The Honorable David Beier
Chief Domestic Policy Advisor
Office of the Vice President
The White House
Washington, DC 20500

Gentlemen:

The undersigned industry associations representing the high technology community are writing at this time to express grave concern about an apparent new direction in government, away from sound policy principles for the future of electronic commerce. This developing trend has disturbing implications for the role of government in the New Economy and requires your personal attention.

In 1997 the Administration issued a directive to Executive Agencies entitled "A Global Framework for Electronic Commerce", which set forth policy with regard to Internet commerce. That directive from President Clinton and Vice President Gore states in part:

"Governments can have a profound effect on the growth of Electronic Commerce. By their actions, they can facilitate electronic trade or inhibit it. Knowing when to act and – at least as important – when not to act, will be crucial to the development of electronic commerce....

"For Electronic Commerce to flourish, the private sector must lead....

"In some areas, government involvement may prove necessary to facilitate Electronic Commerce and protect consumers. Where governmental involvement is necessary, its aim should be to support and enforce a predictable, consistent, and simple legal environment for commerce."

Despite this clear direction, the Administration's Fiscal 2001 Budget includes the following e-commerce initiative:

"No later than tax year 2002, the IRS would be required to offer one or more options to the public for preparing and filing individual income tax returns over the Internet at no cost to the taxpayer."

On February 4, 2000 the Internal Revenue Service released a statement that declared:

"The IRS could implement this option by issuing a Request for Proposal (RFP) to the industry requesting vendors to submit proposals that would meet such requirements as:

Allowing any taxpayer to prepare 1040 series tax returns through access to a vendor maintained Web site at no cost to the taxpayer.

Providing related customer support to the taxpayers using the site.

Providing acceptable transmission security using industry standards such as SSL.

Agreeing not to use the tax data transmitted by the taxpayer for any purpose other than transmission to the IRS without explicit permission from the taxpayer.

Agreeing to IRS-specified compliance procedures to ensure compliance with this commitment. Prominently displaying these commitments on the site.

The RFP could request the vendors to quote what terms, financial or otherwise, the vendor would require from the IRS to provide the service. Under this approach, the IRS could accept as many proposals as it felt were responsive and useful in serving the public. The number accepted could range from one to many."

On May 9 of this year, senior officials of the Internal Revenue Service addressed the Council for Electronic Revenue Communication Advancement (CERCA). In those comments on behalf of the agency, the following announcements were made:

* the Government has set a national policy objective of reducing the pricing of Internet-based electronic tax preparation services in the United States to zero;

* the Government's zero price objective is not a Digital Divide initiative, but is intended to establish pricing for electronic tax preparation services for all Americans;

* the agency is examining areas of possible incentives to motivate companies to drop their prices to zero, and would conduct a procurement action to solicit recommendations about what such incentives should be;

* the industry's Internet business model for electronic tax preparation services is being closely examined by the agency to determine what that model should be in the future, including, for instance, whether continued banner advertising on such websites will be permitted;

* in response to a series of questions posed by the Electronic Tax Administration regarding the requirements and flexibility of rules in an Internet environment, the IRS privacy regulations governing the use of citizen tax data are being actively reviewed by the agency's General Counsel,;

* there is a direct connection or linkage between the future requirements of the privacy rules governing the use of taxpayer data, and the incentives the IRS might offer to vendors to drop their market prices to zero.

Press accounts of the IRS explanation of its plans include a May 9 article by Tax Analysts' *Tax Notes Today* (enclosed). With regard to the specific IRS proposal in the President's budget and future privacy regulations, the article quotes IRS officials as follows:

> *" 'What it basically says is that there is in fact a connection here,' Barr said. 'Essentially what the president has said here is that the administration is interested in pervasive, free electronic filing over the Internet with the assurance that information would not be used without the taxpayer's permission.' Barr later added that 'clearly it intimated' the taxpayer could opt in to marketing."*

This same article quotes spokesmen for the agency as stating that:

> *" 'From my perspective, I clearly understand there are no free lunches per se,' Barr stated. 'What we're interested in understanding is what revenue models make sense.' Also, the IRS wants to know how the agency and businesses can work together to make free electronic filing a viable alternative....*
>
> "Tax Analysts *later asked Barr what would happen if the marketplace cannot support offering free electronic filing to taxpayers? 'We'd have to look at other alternatives', Barr said.*
>
> *" 'I wouldn't declare we'd build our own software, for two reasons,' Barr continued. 'One, I seriously doubt we'll get to that point. Two, I seriously hope we don't get to that point.' "*

It is unclear to us on what statutory basis the IRS would set national pricing for services in the electronic commerce industry or seek to regulate the Internet business model for

electronic financial services, including making determinations about what revenue models make sense for electronic commerce in the United States. Neither do we find legal authority for the IRS to link consumer privacy regulations to specific price levels for services in private sector markets. We certainly do not believe that the IRS' threats to enter the tax preparation software and Internet commerce business if the private sector fails to adopt IRS-set price levels and revenue models for e-commerce services have a basis in law.

The agency is correct that the "bricks and mortar"-era IRS privacy regulations governing the use of tax data need to be updated for the e-commerce era, as do many other paper-era government regulations. The President's 1997 e-commerce policy directive clearly directs that such regulatory modernization be undertaken as a necessary element of ensuring an environment that facilitates e-commerce and meets consumer needs. However, it is clearly inappropriate for the Government to in any way link the application, or modernization, of privacy regulations to the pursuit of particular market pricing objectives that the Government may be seeking. To the contrary, the Administrative Procedures Act provides the established process for such a regulatory modernization initiative, and the IRS should follow those requirements accordingly.

The desire by the Government to attempt to either regulate or compete with the electronic commerce industry in offering Internet tax preparation services appears, on its face, to conflict with the President's e-commerce policy directive in every respect. The reality is that the private sector invented and is offering multiple Internet-based tax preparation services to consumers today at low cost and often at no cost. This innovation is happening in an intensely competitive electronic financial services market. Multiple companies also have created Digital Divide initiatives by which they donate Internet tax preparation services to low- and middle-income citizens; these programs, in place for the last several years, are now nearing one million free transactions per year and are growing at a dramatic pace.

The need for the Government to insert itself into this industry in the manner it is now proposing is inexplicable. The natural forces of the free marketplace are serving taxpayers well, providing multiple choices and alternatives for consumers. In addition, the electronic filing of tax returns has grown enormously over the last several years, and it is expected that this dramatic growth will continue.

If the Administration's electronic commerce policy is being modified along the lines of the activity being now proposed by agencies such as the IRS, it is vital that such a significant change in policy direction be fully and openly put forward for debate and dialogue -- with the involvement of the high technology industry, Congress, and the general public. The range of issues raised by the IRS proposals and plans go to the very core of determining what should be the appropriate role of Government in the emerging New Economy, and what should be the scope of agency missions for the future.

The high technology community strongly supports the need for *e-government*, including the modernization of government infrastructure, the electronic accessibility of

government to its citizens, and digitizing governmental functions. However, commercial activities -- such as price-setting and making determinations about business revenue models -- are only considered to be governmental functions in highly regulated industries, and only when Government agencies have statutory authority and a defined charter for setting industrial policy. Such activity is not generally understood to be the mission of the IRS.

Likewise, offering commercial products and services to the consuming public, including the marketing and distribution of the same, are among the most basic of commercial activities. However, under long-established U.S. policy, commercial activities are not supposed to be governmental functions. In the course of governing, government is not supposed to compete with its citizens. Similarly, Presidential policy has long declared that the Government shall not start or carry on any activity to provide a commercial product or service if such services are available from the private sector. OMB Circular A-76 makes this clear.

Given all of the above, the undersigned high technology industry associations are deeply concerned by the developing trend of public agencies inappropriately trying to insert themselves, or seeking to compete, in private sector e-commerce markets. President Clinton and Vice President Gore were correct when they directed in their 1997 e-commerce policy that the private sector should lead, and that Government needed to restrain its contrary impulses:

> *Governments can have a profound effect on the growth of Electronic Commerce. By their actions, they can facilitate electronic trade or inhibit it. Knowing when to act and – at least as important – when not to act, will be crucial to the development of electronic commerce.*

We strongly urge that you reevaluate the electronic commerce plans of the IRS in the context of the Administration's overarching policy directives, before the agency's mission enlarges significantly beyond that which was intended, and a major policy disconnect develops that adversely affects the continued growth of e-commerce in this country.

Sincerely,

Edward J. Black President and CEO Computer & Communciations Industry Association (CCIA)	William T. Archey President and CEO American Electronics Association (AEA)	Ken Wasch President Software and Information Industry Association (SIIA)

Enclosure

Mr. BOHANNON. Our testimony has been presented for the record.

We also want to note that Mr. Barram was very, very kind and gave us a very, very thoughtful response to our earlier comments to GSA. With this background and with additional information, it is important to understand that we want to focus on FirstGov as a system, not merely as a portal, what one sees up front. Quite frankly, we could get 10 experts in a room and have 15 opinions about what the portal would look like.

Our focus really is on the system and the implications for ensuring that there is access to all government information on a timely basis, consistent with legal and public policy principles.

This is a very unique venture by every measure, and we commend Dr. Brewer for stepping up. It is not always easy to work with the government.

It is also important to understand that out of this there is a special exclusive relationship between the General Services Administration and with the not-for-profit Fed-Search Foundation. In this exclusive position, the Foundation will build, operate and maintain the search engine. They will also be responsible for indexing all U.S. Government Web sites. This task is not merely technical nor ministerial. It will, in fact, determine what citizens see about their government. It will also determine what are priority queries and results in this process.

Access to this index and, for that matter, any aspect of FirstGov can only be done by being a certified partner. In our view, imposing those conditions, regardless of which level you are at, is inconsistent with Federal law and policy, including the Paperwork Reduction Act, which prohibits agencies from restricting or regulating the use, resale, or redissemination of public information to the public.

Moreover, to be a gold or truly certified partner, in our view, also requires you to enter into a number of agreements with the Fed-Search Foundation. These dual negotiations, we need to be cognizant of, create a ripe opportunity for confusion. It also raises questions about whether we are all benefiting from a gift or, in fact, reimbursing costs that we just do not understand.

It also, based on the information we have today, might raise the possibility that many of the existing redisseminators or other access providers may have to change their business models, their customer relationships, but again these are questions that many of those who are interested in participating are raising but yet we do not have information at this point to answer these questions.

With the time remaining, let me quickly focus on our recommendations.

First——

Mr. HORN. Well, could we ask that the things that Ms. Katzen should be addressed to, if you feel it hasn't been here, we will get back with you, but I don't want us to go without questions by both Members.

Mr. BOHANNON. That's fine. I would like to get back to our recommendations.

Mr. HORN. All right, fine.

[The prepared statement of Mr. Bohannon follows:]

Software & Information Industry Association

Testimony of

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Before the
Subcommittee on Government Management, Information
And Technology
House Committee on Government Reform and Oversight

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Mr. Chairman and members of the Committee, thank you for giving us the opportunity to testify today on the FirstGov project.

As the largest association of companies providing code and content for use by business, educational communities, consumers and users of the internet, the Software & Information Industry Association (SIIA) currently has more than 1,000 members in 33 countries.

Our views are drawn from SIIA's unique vantage point. Our membership includes many of the leading technology companies that provide the backbone of the World Wide Web and develop cutting edge search engines, software and digital services. It also includes traditional and electronic publishers that provide a wide variety of information products and services covering nearly every subject matter imaginable, as well as companies that obtain information from government agencies and incorporate this information into products and services that are then sold to the public. Thus, with this unique range of industry experience, SIIA is well-positioned to provide some important considerations to this Committee, as well as the Executive Branch, at this important stage of implementing the FirstGov project.

Shared Vision of eGovernment

In many respects, SIIA shares the dynamic vision of eGovernment that has been expressed by this panel and by the announcement on June 24 of this year by President Clinton and Vice President Gore. SIIA members have been at the forefront of encouraging the digitization of government, both in its internal operations and in the provision of services to citizens. We commend the proposal to provide citizens, small businesses and community groups with "one-stop" access to grants and procurement opportunities. SIIA and its members are ready to help in any appropriate way to implement and publicize the launch of new "e-government" initiatives, and we look forward to working with the Congress and the Executive Branch to ensure that the spirit

and specifics of the Government Paperwork Reduction Act (GPEA), which require all agencies to be online by October 2003, is fully achieved.

Moreover, SIIA is pleased that Director Katzen has taken a leadership role in reviewing on a government-wide basis all eGovernment activities. This is an important time to review these developments to ensure effective competition, the appropriate roles of the public and private sectors, and meeting the goal of a dynamic electronic commerce environment in which Government participate. We look forward to working with her in this endeavour. As you know, Mr. Chairman, we have expressed our concern about the growing ways in which government is in competition in the area of electronic commerce. We need to focus our time and attention on this front in the very near future. For the record, we would like to submit the letter of June 23, 2000, signed by SIIA and other associations, on this issue.

In many respects, the June announcements flow naturally from the President's "Memorandum to Executive Departments" issued on December 17, 1999, which included a number of important initiatives to help citizens gain access to existing U.S. Government information and services, and to provide better, more efficient, Government services and increased Government accountability to its citizens.

At the time that the Memorandum was issued, SIIA noted, with interest, the call to promote access to Government information organized "not by agency, but by the type of service or information that people may be seeking" and the goal that "the data should be identified and organized in a way that makes it easier for the public to find the information it seeks." (see http://gits-sec.tres.gov/electron-gov.htm) As the leading Association of companies that have the experience, expertise and technology to achieve that goal, SIIA members have a long, successful track-record of providing search tools and value-added, readily available information in both physical and digital form to meet the demands of the public, including both individuals and institutions.

Concerns with FirstGov

By any measure, FirstGov — both as a website and as a back-end operation — is a work in progress. As this Committee knows, SIIA submitted a letter earlier this summer raising a number of concerns and would like that entered into the record. We also appreciate the timely response from GSA Administrator Dave Barram. Taking into account the evolving nature of the project, and the answers we have received to date, we are now focused on several areas of concern:

The purposes of FirstGov are still unclear. As we pointed out in our comments to the General Services Administration (GSA) this summer, no consistent description of the FirstGov System has been offered. The question remains: Is FirstGov "a single point of entry to one of the largest, perhaps the most useful *collection of web pages* [emphasis added] in the entire world" as President Clinton described it in his remarks on June 24, 2000, in Los Angeles, California? (See http://www.whitehouse.gov/WH/New/html/internet2000-06-24-text.html) Or is FirstGov "a single web site … that will allow citizens to search *all online government documents*" [emphasis added] as described in the supplementary material provided by the White House Press Office? (See http://www.whitehouse.gov/WH/New/html/e-government.html) Or is it the "first-ever" website that "provide[s] the public with easy, one-stop access to *all* online U.S. Federal Government *resources*", "allows users to browse a wealth of *information*", and "enables users to conduct important business online" as described in the "Welcome to FirstGov page of the website? [emphasis added] (See http://www.firstgov.gov/top_nav/welcome1.html)

My own use of the FirstGov site was not much help in clarifying this question. The website is a combination of a search engine, sidebar postings of interesting topics and organizational links to other U.S. government branches and to state and local governments. In using the search engine, I tested 3 subjects chosen at random — Medicare, standards and exports. In return, I received, respectively, 57,310 matches, 719,222 matches, and 103,409 matches. For even an experienced web surfer such as

myself, the results were truly staggering. As for the interesting topics and organizational links, on the whole, these were click-throughs to pre-existing sites that would be familiar to those who are already familiar with specific parts of government.

We include in our recommendations below a step to help clarify this issue.

The roles of the US Government and the FedSearch Foundation need to be clarified. For most of the summer, it appeared from the public statements that a "FirstGov" foundation, made up entirely of government officials, under the auspices of GSA, but funded by Dr. Eric Brewer was the sole implementer of this project. In his answer to our letter, Administrator Barram clarified that there are, in fact, two distinct management centers. For the government's side, there is a FirstGov Board of Directors drawn from the President's Management Council and includes some agency Chief Information Officers (CIO's). It appears to be a "governing body" that gives direction to a small, interagency "FirstGov Management Team" with responsibility for management of the FirstGov "system". On the private sector side, a private, not-for-profit foundation – the FedSearch Foundation -- has been created with the generous support for Dr. Eric Brewer.

To become a "certified partner" in the FirstGov system, a company or entity must successfully negotiate with both GSA *and* the FedSearch Foundation. At every crossroads in the "FirstGov System", the FedSearch Foundation is in a key role of implementation and interaction with third party private sector partners.

As is well known by now, the FedSearch Foundation has provided the U.S. government with a gift of services and property. It is expected that Fed-Search will build, operate and maintain a search engine that will accept queries from the public and provide "matches" (perhaps in the form of documents, sites or pages) from apparently all Federal government websites. The goal is to cover all U.S. Government sources that have a Universal Resource Locator (URL) ending with the Top Level Domain (TLD) of ".gov" or ".mil". As part of the gift to the U.S. Government, it is expected that the

Foundation will supply all of the hardware, software and bandwidth necessary to build and operate the search engine. Based on the experience to date, it is apparent that the Foundation will be subcontracting with a number of technology providers, including Inktomi, to secure access to the software and services necessary to build and operate the search engine. It also appears that the FedSearch Foundation will be paying its contractors, including Inktomi, to provide support to FirstGov's technical personnel as the FirstGov portal is implemented and operated.

The role of the Foundation does not stop there. As my own experience with the search engine indicates, and as Administrator Barram's letter confirms, further work must take place for FirstGov to produce viable, manageable search results. Inevitably, that means a systematic indexing and capturing of essential search elements for use by the search engine technology.

It comes as some surprise to us to learn that this responsibility is entirely in the hands of the FedSearch Foundation. As we understand it, the Foundation is spidering all US Government websites that currently exist and which are expected to be created in the near future. The Foundation is also apparently developing a unique protocol for how it will ensure comprehensive and accurate coverage of Web sites and pages, taking into account a variety of characteristics. Out of this spidering, a unique database/index "will have collected full-page copies of all government web pages from all government agencies". (Barram Letter, page 1) The Foundation will be the only repository, for now, where all the full-pages are indexed.

This essential step of further enhancements is not merely technical nor ministerial. Rather, it is at the core of what information is provided in priority order and will determine what individuals see first about their government. Similar questions are raised in the context of the choice of non-government websites that are reached through click-throughs found through FirstGov. We have specific recommendations on this issue, as discussed below.

In addition, it is not clear that the arrangements between the US Government and the FedSearch Foundation have addressed what will happen with this work product when, in approximately 18 months, "[t]he government plans to conduct a full and open competition" to find a commercial substitute for the Foundation in providing services. As indicated, the Foundation only expects to continue its role of providing a gift of technology and services for free for two (2) years. It is imperative that the US Government demonstrate what steps have been taken to ensure that, in fact, it will be able to make the transition. Moreover, SIIA believes that waiting until two years from now is unacceptable. Again, we make specific recommendations below on steps that should be taken to prevent any confusion or missteps two years from now.

Questions remain as to whether a commercially desirable framework for partnering has been established. We welcome the recognition by the FirstGov team that partnering with private sector companies and entities to fulfill the promise of eGovernment is a priority. We agree that the presence of private sector partners "will raise the level of innovation and thereby enhance the citizen's searching experience." (Barram Letter, page 3)

Yet, partnering is merely one way in which this goal can be achieved. It is also critical to preserve the ability of the private sector to operate independently in giving citizens access to information. In all of these respects, the priority is to achieve the public policy goal of promoting a diversity of sources for government information and provide the opportunity for those experienced in the field to utilize the tools at hand to satisfy specific markets and customer needs. Moreover, it is essential that the implementation of FirstGov not lead to the result that only a handful of companies are capable of meeting the commercial conditions, economic burdens, and technical requirements for participating as "certified partners".

We fully appreciate that the commercial arrangements surrounding the "certified partner program" are very much a work in progress. Based on the information we have to

date, a number of elements contribute to our concern about the viability of the partnering program.

First, the current "Application for FirstGov Certified Partner Status" includes terms and conditions that are not commercially reasonable and may be undefendable by law. We note that while initial comments were sought by GSA on proposed criteria, no response has been provided publicly to any of the concerns raised by these comments. Many of the criteria are left to "future decisions" by the FirstGov Board of Directors, suggesting that a company's investment and expenditures related to being a certified partner will be subject to on-going changes during the term of the agreement. For example, one of the criteria — "accessibility" — specifies that "GSA will provide additional guidance on meeting accessibility requirements, as it becomes available." We note that proposed regulations implementing Section 508 of the Federal Rehabilitation Act have been delayed well into next year.

The "Application" also micromanages how query results will be displayed by Certified Partners, and potentially how any information garnered through the FirstGov portal by Certified Partners will be encumbered in downstream or value-added applications. For example, "intrusive advertising" is prohibited and the Application details what are acceptable and unacceptable banner placements and mandates specific disclaimers regarding government endorsements. Similar concerns arise from the proscriptive manner in which companies must provide "free access" and does not take into account the diversity of business models which may include on-going charges to subscribers who may happen to access the FirstGov portal through pre-existing pay-per-use, licenses, or unrelated subscription services or when they access to value-added or content-enriched sites. These are just two examples; almost every criteria in the "Application" needs further reworking in this regard.

In our original letter to GSA, we noted that the requirements associated with FirstGov very likely contravene the requirements of the Paperwork Reduction Act (PRA). We note that this concern remains. To reiterate, to ensure the widest possible

dissemination of public information, the PRA prohibits Federal agencies from "restrict[ing] or regulating the use, resale, or redissemination of public information to the public."

Second, the dual negotiations with both GSA and the Foundation create a ripe opportunity for frustration and confusion. As it stands, a potential "certified partner" first must have its "Application for FirstGov Certified Partner Status" approved by GSA. Once this step is completed, and after the FedSearch Foundation receives notification from the FirstGov Project Team that certification has been granted, a second round of negotiations ensues. To establish direct access, a potential certified partner must enter into a "Customer User" Agreement with the Foundation; pay a direct access fee "up front" for the first year's connection (estimated to be $25,000) and subsequent direct access fees for later years which may be divided into month installments (again estimated to be $25,000 annually); and enter into a Mutual Confidentiality Agreement with Inktomi, which is providing the key pipeline for access to the search engine and indexed database. There may be other requirements. For example, it has been suggested that a Certified Partner, as part of its condition for direct access, may be required to display the Inktomi icon on all search and search results pages offering the Fed-Search engine or results generated by it. It also appears that Certified Partners will be charged at a "per query" rate, billing to be done directly by Inktomi.

Third, the question has been asked whether a Certified Partner is benefiting from the provision of the generous gift of technology and services — or, in effect, reimbursing the cost of the Foundation's activities and its contractors and subcontractors. The commercial attractiveness of this arrangement, and the enticement for private sector partners, will be affected by both the economics and perceptions of this arrangement and the impression that it leaves for other players in the market.

Fourth, it is clear that any private sector partner who wants direct access will be required to use the specific protocols, indexing and "pipeline" provided with the deal. There are clearly risks in relying on a specific technological approach in this area,

particularly when public policy and the current legal requirements promote a diversity of sources of information and seek to ensure that government information be free from encumbrances. At a practical level, there is a distinct concern that existing information disseminators and information portals will have to adapt their architecture (and business models) to benefit from the potential commercial promise that the FirstGov system may offer.

In short, our concerns go to the heart of ensuring several mutual goals: giving citizens full access to government information, ensuring that the rules do not result in only a small number of potentially handpicked companies becoming Certified Partners, and that the resources and effort put into FirstGov produce widespread benefits both today and tomorrow.

Recommendations

Taking into account the current state of FirstGov, the concerns identified above, and the shared goal of producing the most benefit out of the efforts made on all sides to date, SIIA strongly encourages the following steps be undertaken by the FirstGov Board and the management of the FedSearch Foundation. While we do not pretend that these steps are a complete solution, they do reflect essential actions that need to be taken to build on the tremendous efforts made to date while addressing concerns identified above. Together, these steps in our view serve to enhance the viability of this project.

- Develop and publish in short order a strategic plan with anticipated costs, revenues and responsibilities for the FirstGov project. This will permit a deeper understanding of the long-term future of this endeavor for all to see. As it stands, the quick pace with which the FirstGov System has come together has produced an ad hoc, piecemeal picture of the current costs to the Federal government, and the anticipated costs and implementation demands required at the end of the two years during which FedSearch agreed to "donate" its services. The plan should also indicate the steps taken by the US

Government at this early stage to assure that, 18 months down the road, confusion will be avoided as the FedSearch Foundation leaves the scene.

- A corollary step is to make public all agreements relating to this activity. These would include any Memoranda of Understanding between the US' Government the FedSearch Foundation and any documentation relating to the gratuitous provision of technology and services to the US Government, including any licenses that the Federal Government may have entered into as part of this arrangement. In addition, to ensure that potential Certified Partners understand the full scope of potential arrangements, copies of the proposed " Customer Users Agreement" and "Mutual Confidentiality Agreement", as well as a delineation of the specific charges or fees to be incurred, need to be known immediately.

- GSA and the FedSearch Foundation need to provide on an on-going basis, bulk access, preferably for free, but certainly at no more than marginal cost, to the index and database of websites that enables the FirstGov search engine to provide enhanced capabilities. It is important to understand that if this index were being developed directly by the Government, such access would be legally required. In this case, FedSearch is neither a contractor nor a recipient of financial assistance; rather it is a gift donor and has entered into an arrangement with the US Government to coordinate their efforts to provided the public with the ability to search for any U.S. Government document publicly available over the World Wide Web. The provision of bulk access could be done either by GSA, as a recipient of the Foundation's work, or by the Foundation in carrying out its coordinated role with the US Government.

  This critical step addresses a number of issues. First, it will ensure that existing legal obligations regarding access to government information are maintained and that the dissemination of that information is done with the goal of insuring diversity of sources. The requirement of information source

diversity is an affirmative mandate – not a passive one. If a governmental entity considers it necessary to its mission to disseminate public data in addition to providing access to it, then the government should ensure that the underlying database is available for redissemination by others. Moreover, it avoids the possibility of locking into technology specific approaches to providing citizen access to information.

- Establish open industry involvement in the ongoing work process, including those activities undertaken the FedSearch Foundation, to engage private sector "partners," and to facilitate unfettered access to the FirstGov database. We recommend that such involvement focus on both technical and business aspects, and the key "enhancement" steps necessary to make this work, e.g., "indexing".

- Modify the business model by which private sector partners are expected to pay hefty fees to subsidize a foundation which was supposedly donating significant resources.

- Recognize that the terms and conditions for working with US Government (and the foundation) must be within existing legal frameworks, commercially viable and contribute to the goal of broad user benefits and meeting customer needs. Many questions and concerns with respect to the policy conditions/guidelines still exist, and therefore, these need to be resolved before moving forward.

- Address the role of the "First Gov" Board and ensure effective accountability for this initiative. It is a legitimate concern, and one that Administrator Barram recognized in his response to SIIA's comments.

Mr. Chairman, thank you for the opportunity to offer our concerns with the FirstGov endeavour and, more importantly, to provide concrete suggestions that will go far toward building confidence in the initiative, ensuring shared public policy goals, and promoting the dissemination of government information through a diversity of channels to meet specific needs.

I will be glad to answer any questions that you or members of the Committee might have.

Mr. HORN. Mr. Fleisher, I will give you 1 minute on this, and then you can have all you want after we are done, and then we will get back to it.

Mr. FLEISHER. Why don't I actually save you that 1 minute, and why don't you get to the questions that you want to get to, and I can come back to my thoughts.

Mr. HORN. All right. We will give you plenty of time.

Ms. Katzen, some of these only you can answer, and that is the privacy situation. How many agencies have a privacy policy now?

Ms. KATZEN. Virtually all. We had sent out a memorandum earlier in the year requiring agencies to post their privacy policy on their Web pages, and GAO their report approximately 2 or 3 weeks ago. I think it was something like 9 sites out of 2,700 that did not actually have the privacy policy posted, and we have been following up with those agencies. So I would say virtually all is an understatement.

Mr. HORN. Now is there one basic approach to this in the agencies or are they all different?

Ms. KATZEN. Well, there are differences, but the fundamental proposition is that personally identifiable information should not be made available without the consent of the individual, and unlike the commercial sector, the government is subject to the Privacy Act of 1974, which sets in place the rules and regulations for privacy information being disseminated.

There are routine uses and other kinds of procedures that have been in effect for the last 25 years, where agencies will let people know when personal information would be used, and those are published in the Federal Register, and there is an entire process on that.

The issue that Ms. McDermott raised and that came up this past summer was the use of persistent cookies. These are not chocolate chip or oatmeal raisin. They are software devices.

Mr. HORN. Let's translate that for the layperson.

Ms. KATZEN. I was going to say, they are software devices.

Mr. HORN. I love pricking bureaucracy.

Ms. KATZEN. It is not my term. It is industry's term, but these are software devices that track users over time and over different Web sites. Now, there is a reason for this. If you don't have this kind of a device, you don't know whether somebody is coming to your site 12 times or if 12 different people are coming to your site.

You also heard from Mr. McClure that he would like at some point for us to be able to get back to individuals to give them updated information. That means we have to know who they are. But our position is that, unlike the commercial sector, we should not be tracking individual information. You should not have to reveal who you are or have some record kept of who you are to access government information.

So one of the conditions that Mr. Barram talked about in our policy on partners, and one of the policies of the Federal Government and Mr. McClure raised, is our adamant position that persistent cookies are inappropriate. Where we find them, we take them down.

Mr. HORN. Let me move from privacy, which we can talk about with the Administrator, to the fee structure 2 years from now.

What is the administration anticipating that the options might be and has any guidance gone from OMB to GSA? How are we thinking this through? It is a very generous offer that Dr. Brewer makes, but 2 years can go fast and pretty soon is everybody going to be billed $1 or something to get information from the government?

Ms. KATZEN. No. Our anticipation is that as technology continues to improve and as FirstGov proves itself, this will be something which Congress, in its infinite wisdom, will choose to appropriate for so that we can have the funds necessary.

The actual processes to date has been the funds needed to set up the first page, the portal, and to administer the site—which cost us $1 and there is $165,000 a month to maintain the site over the next 2 years—that was achieved by a pass-the-hat. I said that we took this to the President's Management Council—the chief operating officers of all the major agencies, usually the deputy secretaries—and it was enthusiastically supported and agencies made contributions to fund the maintenance of the portal for the next 2 years out of existing funds because we did not have any appropriations for this at this time.

The search engine itself was donated by Dr. Brewer, and his arrangement for 2 years from now, or it is almost 3 years, will be to leave a lot of options open for how we would proceed, and Dave Barram can talk about the kinds of things that we are thinking. Two years from now there will be a new administration. It will also be, most importantly, after the system has been tested. It will depend on whether it works, if it is well received and it needs to go forward, and don't want to lock anything in now, but there are a variety of options available.

Mr. BARRAM. Let me add to that. We, as Sally said, we passed the hat and I think in fiscal year—and in fiscal 2001 we are going to pass the hat to cover the costs we have still to go in 2001, but for 2002 we should be getting an appropriation. That's one point.

Second, as Sally said, when we get—the agreement we have with the Fed Search Foundation, which is an independent, private, nonprofit foundation, is that what they are doing, the kind of technology they are using, will not be such that it is proprietary and can't be assumed by someone else.

So we will have an open bidding process that will begin. The process will begin 6 months before the end of the period, which is two, two and a quarter years, or whatever. I forget. I don't know exactly the date, but 6 months before that we will begin the process to figure out where we go from there.

And we will—another really important thing is we will have been knowing, understanding, collecting information on the costs to do it. That's one of the things that Fed Search has agreed to, that they will make open the costs of running it so that we can have an open, fair bid.

Now here is something else that we all should always keep in mind. Internet time is an amazingly new experience and in 2 years I am not going to sit here and try to predict what life will be like. I don't know how old Inktomi is but they have come from not very long ago to an amazing place in the world, and technology is growing dramatically, so we don't—there is no point, I don't think, in

spending a lot of time figuring out what the technology is going to be in 2 years, as long as we have the right process for someone else, or even Inktomi, to take this over. As long as it is there, that's what we have set up.

Mr. HORN. Mr. Barram, I am going to yield the rest of the questioning of 10 minutes to my colleague from Texas, Mr. Turner. So go ahead.

Mr. TURNER. Thank you, Mr. Chairman.

First, I want to thank Dr. Brewer for the contribution that he has made. I can see you have provided us with something that moved us forward on a much more rapid basis than we ever could have done without your contribution. To think that this was a 90-day project and that it succeeded on that timetable is truly amazing.

I do know the sense and motivation that you have, as all of us do here in public service, and you have taken your talent and have, in your way, attempted to give back some of what you have been so fortunate to receive. So for that we are very grateful.

Mr. BREWER. Thank you, Mr. Turner.

Mr. TURNER. I know that some of the questions that were raised today are the kinds of issues that this committee and all of us would be wise to diligently pursue, because obviously your intent in making this gift of a search engine to the government has a limited timeframe on it, and understandably so.

But understanding how slow sometimes the government does move, we would be best advised to be sure that we are prepared to deal with the problems that we face and to make the transition that you expect government to make and that has been agreed to by you and the GSA.

I might just ask you, by way of overview, having heard some of the comments here today, some of the questions that were raised regarding the partners and the arrangements with partners, some of the issues regarding whether or not others may at the appropriate time be able to bid on an equal footing to continue this operation of the search engine, to just share with us your general overview and thoughts about the direction you see this as the primary donor of this project.

Mr. BREWER. I would be happy to. To start, I think maybe the first place to start is to realize that it has a fixed lifetime in part because I want it to be done the right way through a normal procurement process that is fair and even and internal. It should not be something done outside the government. It should be done by the government itself.

Second, I would point out we have no special relationship with the government. The things we are doing is basically visiting Web sites to collect information to build a data base. Many other companies can and do that now. We are just doing it as a foundation, so that we can donate it not only to the government but to libraries and schools and other groups.

In fact, the government has no obligation to use the Federal Search engine data base. They can use their own or create a new one whenever they like, and I would love to see that. There is no attachment to us being the solution. I think my only attachment

is to getting the process started, which I am happy to say we have done.

So there—in my mind there is no special privilege that we have, that we are using public information that anyone else can go get from the same Web sites that we get it from.

Finally, I think it is worth pointing out that we have been a bit more practicable than that. We have agreed not to affect the requirements for the procurement process so that we are not affecting what the requirements are in any way. We will stay out of that process, and we have also agreed to continue to run our data base not only until the decision for replacement has been done but until it has been put in place, so that there is no pressure on anyone to hurry up and make a bad decision. So, in good faith I think we will run it as long as necessary to get all of those things done.

At the same time, I would like it to be aimed for 2002 because I think it is one of those things where we ought to focus on keeping the momentum, and if we set it at 5 years nothing would get done for 3 of them. So let's—it should have a fixed time line. That's definitely part of the design.

Mr. TURNER. Could you give us some sense of what we are likely to be facing in terms of cost? I know from the testimony that we have heard already, the cost of maintaining the Web site itself, I believe, Sally, didn't you say it was $165,000 a month?

Ms. KATZEN. Yes, sir.

Mr. TURNER. Which has been raised by the agencies pooling their resources.

Obviously, I am sure the agencies would prefer a direct appropriation to take care of that some time in the near future. But in terms of the cost, the estimated cost of taking over and operating the search engine, what range are we talking about?

Mr. BREWER. It is a little hard to tell at the moment because it depends on two things that are very hard to predict. One is the number of documents on-line, government documents, which at the moment is 27 million, but my hope is that number will increase dramatically. That will raise the cost pretty much proportionately with the number of documents on-line. The other one that is hard to predict is the amount of traffic. In some sense, the more popular the site is, the more effective it is, the more traffic it will have and the more it will cost to operate.

So the underlying costs are tied directly to traffic and data base size, neither of which is predictable. That being said, I expect in the 2 years that it will cost me on the order of $5 million to $10 million. That includes some subsidies from both Inktomi and Sun Microsystems, and I obviously hope to raise money from many other parties and in-kind contributions, all the normal things that a charity would do.

Mr. TURNER. It is obvious that the cost far exceeds just the cost that we have talked about already that the government has provided by pooling the $165,000 a month, is that right, Sally?

Ms. KATZEN. Yes, sir.

Mr. TURNER. Have you all looked at any estimates? Is there any way to try to determine what kind of costs we may need to be prepared to appropriate?

Mr. BREWER. The plan is to do exactly that as we gather more information, and I think we have the time to do that well.

Mr. TURNER. OK.

Mr. BREWER. Also, there is a certain inefficiency in the fact that we are completely keeping the systems completely separate, and so I think there would be some cost reduction if you actually did do a full procurement and did it with one contractor.

Mr. TURNER. I would like to hear some comments from any of you who would like to address this issue. Obviously there are reasons for government sites to be accessible at no charge, and yet we all know the primary way of funding many of these sites is through advertising. Give me, if you will, from your perspectives, the pros and cons of operating this site solely at government taxpayer expense versus the merits of perhaps—or if there are merits of considering some source of private outside revenue for support of this type of site.

Sally, I will start with you.

Ms. KATZEN. Yes, sir. Well, the Paperwork Reduction Act makes it quite clear that government information should be made available to the citizens at no cost. It was the taxpayers' money which generated the data in the first instance and they shouldn't have to pay twice to get it back. That philosophy has governed our approach to making government information as widely accessible as possible at no cost.

The presence of advertising is viewed as a cost by those who are distracted or disturbed by the boxes that flip up or the frames that are created around the Web pages to entice people to do certain types of activities that are commercial in nature.

Information is, I think, at the heart of our democracy. It helps us know better what it is that the government is doing and to appreciate in some instances the complexity of that. As we move into an information age from an industrial base on manufacturing, it does produce certain challenges, and things like privacy that the chairman mentioned and security are terribly important concerns as we have these interconnected networks. But the technology is really giving us a key and it is opening the door here for us to be able to have much better dissemination of information.

We just don't believe, and we think the Congress has spoken eloquently on the subject, that it should not be paid for.

Mr. TURNER. So that includes any form of consideration of advertising on this site of any type, in your view?

Ms. KATZEN. That is in my view, yes.

Mr. TURNER. Does anyone have a contrary view? No one?

Mr. BREWER. It is certainly worth pointing out that many of the partners would be able to have advertising, and I think as long as there is one primary source of government information, it is OK if there are others that are more economically minded and may be more biased.

Ms. KATZEN. They could have advertising on the gold model that Dave is referring to.

Mr. BREWER. And the silver model.

Ms. KATZEN. And the silver model, on their own pages, because they are creating value added and that's their compensation for their value added. But as to the underlying documents, which are

the government's property, those are to be accessible without charge.

Mr. TURNER. Thank you.

Thank you, Mr. Chairman.

Mr. HORN. Let me just ask and maybe we pursued it but not enough, if the data bases are not in the public domain, what impact does that have on the control of FirstGov and access to government information?

Ms. KATZEN. Well, actually the data base is in the public domain, because what the search engine does is spider documents that the agencies in the first instance have determined to make on-line. Dr. Brewer's hope is that agencies will put more documents on-line, but right now the agency makes the determination, puts them on-line, and then the spider picks them up and brings them into the data base. Those are all public documents, and any citizen can go to the FirstGov page and get access to any of them. It is absolutely free and it is in the public domain. That is not an issue.

If others want to add value, if they want to do this in a different way by asking questions rather than by keyword search, if they want to use a different model, and there is a number of them and we would like to see as many models bloom as possible, we are hoping that universities will do so. We are hoping that the private sector will do so—we have done a lot in this administration on public-private partnerships, and this is one place where we think there is a golden opportunity. We are going to give it to you straight, and they can add whatever value they want in whatever size they want, but the data are all in the public domain. And that's why I disagree with Mr. Bohannon about the Paperwork Reduction Act. I think that it is quite clear that this is not a violation.

If I could just add one more thing, sir, before regrettably I do have to go, I agree with a number of the comments that have been made about what things we have to think about as we mature the system. I am particularly sympathetic to the call for clarifying or explaining how the partnerships work, and how the data base will be developed over time and 2 years from now. It seems that no good deed goes unpunished. When we first started on this process, Dave Barram put together in his own PowerPoint an explanation of what this thing could look like, and to get feedback we put it out; in response, we got all of these questions and concerns that we now understand how they could have raised those questions, but that was not what we had been planning. It was not what we were thinking about.

The speed with which we have tried to put this up and get it started, and this is just a start, has meant that we have spoken our language, maybe bureaucratic, maybe technical. We have used shorthand for what we are thinking, and I agree completely with the need to go slowly now to clarify.

Mr. HORN. Now on that point, is it OMB or GSA that would develop a strategic plan that included anticipated capabilities, costs, revenues and responsibilities?

Ms. KATZEN. This would be the responsibility of the FirstGov board on which I sit and Dave Barram sits, as do several other members of the PMC, the President's Management Council, and several of the CIOs from the relevant committees of the Chief In-

formation Officers Council. That board has been meeting more than some of us would like, and we are going to continue to do that.

Mr. HORN. You are going to expose Dr. Brewer to bureaucracy. They don't have that in Silicon Valley. They are doing things.

Mr. BARRAM. But he might have it at Berkeley, though. He may know about this.

Ms. KATZEN. Thank you very much, Mr. Chairman.

Mr. HORN. You are quite welcome. Thank you for coming.

Mr. BARRAM. Can I just add one thing to what Sally said. She answered your question about who had the documents, the public domain. What the Fed Search Foundation does is bring back full text copies of all 27 million pages into a data base, and from that people can search. They are simply copies of all the data on the government's pages. So when you are given a—when you ask a question, it comes back and says, you will find what you want at the URL of, and you go to that and now you are in the Federal Government page, which is in the public domain.

So for a moment these pages, the copies of these pages, are in Fed Search's possession, if you will, but anybody can get to those, the originals of those pages, and does.

Mr. HORN. Dr. Brewer, let me ask you this question: As I understand it, the search engine donated by the Federal Search Foundation includes a massive index data base. Now, who owns this data base and can anyone gain access?

Mr. BREWER. Let's see. It is a bit complicated, frankly. The data base, although it contains public documents, is in fact a separate and new creation done by a private foundation with private funding. So technically the Fed Search Foundation has created this piece of intellectual property.

That being said, we want people to use it. Therefore, we give it away, not only to the government but to libraries and schools and in particular to anyone else the government tells us to, a module of constraints which I will get to but roughly that was the premise of the partner program. We are in some sense agnostic about the definition of the partner. We simply want to have the government decide what an appropriate partner is rather than us having to decide.

So the thing that is, I think, subtle is because this is a privately owned data base. In fact, we are not allowed to give it to other corporations and we are not allowed to subsidize their business. That's specifically against the rules about charities.

So we can give it to them at cost, which we are happy to do, but we cannot—we cannot subsidize their businesses. So if they go through the government sites, FirstGov or any other government site, then they can have it free because we are subsidizing the government or the library or the school. If they want direct access to do their own portal with this information without going through the government, they can do that but now it is a relationship to an ongoing business and we cannot subsidize them.

We will provide it at cost, but that's really our only issue.

Mr. HORN. Well, they are patented or copyrighted, the software, or what? How does that work?

Mr. BREWER. In practice, the data base doesn't—isn't of any use outside the servers that it runs on. So when you actually do a

query, the query has to physically travel to the data base and then get returned. This is how all Internet search engines work. So there is nothing special about this from the Fed Search Foundation.

When we say give access, what we really mean is we will have a connection, a network connection, to their servers and they can send us traffic to our computers that will send them the answers, but these have real costs. There are real computers that the stuff has to run on. There is band width we have to pay for. We have our own suppliers that have their own restrictions that we have to follow, but those are, to some extent, those costs.

Mr. HORN. What kind of security do you have against that process so that when our unfriendly people that are engaging our networks all over the world, what can you do to stop that or slow that down?

Mr. BREWER. I would say two things. First, the most important perhaps is that this is—we only have public information. So in some sense the penalty for security violations is mitigated by the kind of information that's in the data base. That being said, we take very seriously that the data base has to be secure, and these are the same constraints that existing search engine portals have, and I think our experience with groups like AOL and Yahoo has been educational and I don't see any reason why the security measures taken in those situations wouldn't work well here. So we do take it very seriously; firewalls, private access, the whole nine yards. But I do have to admit I find some comfort in the fact that it is already public data.

Mr. HORN. Well, do you see your colleagues in Silicon Valley, be it East, West, North or South, working on something of diversion, shall we say, when that type of signal gets in when they really shouldn't have access? And how are those doing? It seems to me there will be millions of dollars made that way if somebody can figure out how to divert the entry systems that we see, whether they are in the Philippines or Latvia. We had a whole number from around the world a few weeks ago before this committee, and it is happening everywhere.

Mr. BREWER. I am not quite sure I understand—we don't actually run the Web sites themselves so we don't operate the FirstGov Web site. The servers we own have very few parties that can connect to them and, in fact, one obviously being the government, but we don't get traffic directly from end users and that makes it much easier to secure.

So all the traffic of Fed Search today comes through the FirstGov portal and we have a direct connection with them and can authenticate that connection to know that it really is traffic from them. In fact, that's part of the cost of adding partners that don't want to go through FirstGov, is that we have to then set up a direct connection with their servers for the same reasons, to ensure the security and that again has real costs that we simply pass on.

Mr. HORN. So you are saying that despite your system that gets access to them, you are saying that those hackers could not get into the governmental computers that way, or could they?

Mr. BREWER. When you actually visit—so when you see a result page, a set of links, that information has already left Fed Search,

is now being displayed by a server, in this case the FirstGov server. So the information is actually there, not at Fed Search, and then when you click on that link you go directly from the FirstGov server to the branch or agency server. You do not go back to Fed Search at any time during that visit. So we have no effect, positive or negative, on the security of particular government Web sites.

Mr. BARRAM. Let me just add a comment. You will remember that when Bill did the demo, you saw the FirstGov page. That's FirstGov. That's a government run thing on servers that are contracted by the government, with appropriate security. When he typed in Social Security, that search went to Fed Search and back came a list on FirstGov.gov again. So from Fed Search, the lists came back to the government page. When he clicked on the top choice, it went to a Social Security site with all the security around there.

It is now two levels away from the Fed Search search engine.

Mr. HORN. So you don't see a problem, and if you do, it is up to the government agency to worry about it and not the process here?

Mr. BARRAM. You know, Eric has described what security they have, and it is important that we—they have that security, and there are a limited number of people who have pipes into the Fed Search engine. The bigger security questions of course are at the agency, and in a much less way at FirstGov, but the real issues on security are, I think, at the agency level where all the Web pages are managed.

Mr. HORN. Do any of our colleagues on this side, the ones that have raised some questions, do you want to ask those and we can get an answer to them and complete the record?

Mr. Fleisher in particular, I feel we have passed you by a little bit, but your firm has a very distinguished position with this subcommittee. You were our first witness in April 1996.

Mr. FLEISHER. Thank you. I think the key reason for me being here today was to focus on our findings on the digital divide. I don't think those are 100 percent tied into the detailed level of questions you are asking about FirstGov.

My 2 cents on it, my firm's 2 cents on it, is that FirstGov is a good, powerful, first initiative for the government. We are excited to see the government doing what we advised the private sector to do, which is go out there and build something and get feedback from your constituents, your clients, your customers, and then adapt and iterate. That's a pretty important process in the Internet world, and we are excited seeing the government doing it that way.

Mr. HORN. Any other thoughts, Mr. Bohannon?

Mr. BOHANNON. Well, if I might have a chance to respond. I think there has been a tremendous amount of very useful clarification and information provided by all the witnesses. Let me try to address a couple of points that have been made.

First of all, it is very, very helpful from Ms. Katzen and Dr. Brewer to point out that some aspects of the data base may be in the public domain right now. We still go back, I think, to recognizing that as this unique gift was provided to the U.S. Government it is still nonetheless a special exclusive relationship between GSA and the Fed Search Foundation. If, in fact, there is a genuine offer by the Fed Search Foundation to make both the data base of origi-

nal URLs, as well as any index that has been further developed based on any particular technology available at cost, we are very willing to sit down and discuss that.

The problem right now, and this is, I think, at the heart of why we need to sit down, get a strategic plan, understand what everyone's responsibilities are, is that right now you are being given two choices. You can either become a certified partner or not, and we clearly have concerns that the only way in which this information will be disseminated is if you agree to both GSA's and the Fed Search Foundation's conditions.

With all due respect to Ms. Katzen, we do not believe that the Paperwork Reduction Act should be interpreted merely by saying if one document is available with those conditions the law is met. We believe that the Paperwork Reduction Act applies to all government information, not just a couple of examples that can be pointed out.

Clearly, and we have a number of recommendations which you can read in the testimony, I think we need to have a very real discussion with the Fed Search Foundation, with GSA, about making sure that bulk access to the index which has been enhanced by the Foundation is available, in our view, under existing government rules, at marginal cost. We need to sit down and make sure there is access to that without having in every instance to meet the conditions that have been imposed by GSA, nor inherently to rely on the technological implementations that may, in fact, be offered right now for access. I think that is a real discussion that we need to have. I think that will go far toward addressing a number of concerns making sure that there is independently available information that is not designed in a particular way that may affect what citizens see.

I think that is one very, very important discussion that is worth focusing on. We appreciate very much the opportunity to have this clarified because it has been very helpful and this will allow some of the companies who do have a lot of interest, who are members of our association, to know more about what kind of business deal they are getting into.

I think that's the kind of information that we need to the strategic plan, making sure that the way the GSA is implementing this is done consistent with legal parameters, with the goal of ensuring a diversity of information sources. That is what is in the public interest here, and we appreciate the candid answers today.

Mr. BARRAM. Can I make a couple of comments in response?

Mr. HORN. Sure.

Mr. BARRAM. I appreciate Mark's both recognizing this as a valuable beginning—and I can assure, and I think he knows, that we are very eager to talk with anybody, and this association is especially important because of the number of—because of the companies involved and their involvement in this whole industry. We have absolutely no intention of not communicating in the most thorough way we can. We have tried—if we have been a little bit less than fully thorough with—I don't know if you put those words together—but with them, it is only because of the kind of time pressure we have been under to get there, but we have listened carefully to their concerns all along the way.

And as he noted, as I have noted, this is the beginning. What this looks like 12 months from now, we are going to look back and ask ourselves, what was all that stuff about in October 2000 that we were scrambling about? So we are going to be partners on this, as you are and all of us, as we go ahead.

Mr. HORN. Well, when you started with that question I was going to praise you for all the good contracts you get at the GSA and we take advantage of them in Congress, just as they do in the executive branch, when it comes to airplane tickets, communications with computers and telephones and all the rest of it. So you do a great job with your team.

Mr. BARRAM. Thank you. Let me just make one more quick comment. We have talked a lot about GSA today and I want to make sure everybody does understand there is a board of directors at FirstGov that is made up right now of 11 people from a number of different agencies. We have been doing a lot of the work at GSA and we are housing it at GSA. We are the right place to do that, but this has been an interagency involvement, driven by the PMC. So for shorthand, you can use GSA. Think of it as the FirstGov board that is setting policy and at times into the deep details.

Mr. HORN. Any other thoughts here, Mr. Fleisher?

Mr. FLEISHER. No.

Mr. HORN. Well, thank you very much for coming. Sorry it was sort of disjointed to get your testimony.

Mr. FLEISHER. No problem. Happy to be here.

Mr. HORN. I looked at your document and that's wonderful.

Mr. FLEISHER. If we could just be sure that would get into the record that would be terrific.

Mr. HORN. All of these automatically go into the record the minute we introduce you.

Mr. FLEISHER. Thank you.

[The prepared statement of Mr. Fleisher follows:]

The Digital Divide and American Society

Michael D. Fleisher
CEO
Gartner

Monday, October 2, 2000

Congress of the United States
House of Representatives
Committee on Government Reform.
Subcommittee on Government Management, Information and Technology.

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you this morning to give you Gartner's perspective on the government's Firstgov web portal project. In particular, I will discuss with you Gartner's new report, "The Digital Divide and American Society," and I will focus on how the Digital Divide affects this and similar e-government initiatives.

As you all know, the Internet has emerged in recent years as a phenomenal engine for U.S. economic growth and development.

But we also know that access to the Internet, which is today recognized as a key tool for individual social and economic mobility, is far from universal. This uneven distribution of Internet access is commonly referred to as the "Digital Divide" and is currently being addressed by a number of public and private policy initiatives.

The digital divide has profound implications in the new wired economy. The Internet will soon be so pervasive that not having access to the technology, or not knowing how to use it, will be the equivalent of not knowing how to read or write. In short, the digital divide carries with it the threat that large segments of the U.S. population will be left behind both economically and socially.

Gartner estimates that by 2005, Internet usage among American adults will reach 75% penetration, or approximately 150 million adults. The fate of the 50 million adults who will suddenly find themselves functionally "illiterate" in the new economy is an issue of profound importance.

Because the digital divide has such important ramifications, Gartner recently undertook an extensive survey to determine three things:

- First, the exact nature of the digital divide. Who is benefiting the most from this technology and who is most at risk of being left behind?
- Second, exactly what sorts of inequities exist right now and what further inequities may arise in the future.
- Third, how effective are current public and private initiatives to bridge the divide, and what long-term strategies have the best chance of erasing the divide over time.

Our first key conclusion is that the digital divide continues to be pervasive. Despite a booming economy, lower PC costs, and phenomenal growth in the Internet, there is still a dramatic shortage of Internet access at the lower end of the socioeconomic scale.

Our second key conclusion is that there is not one, but actually three digital divides. The first digital divide will one-day be closed by universal PC ownership and universal Internet access. But a second digital divide will continue to exist that we call the *experience gap*. Lower socioeconomic groups who have only recently gained Internet access will not derive significant benefit in the near-term due to the steep learning curve that accompanies any new, complex technology. This experience gap will evaporate over time, but it is very real today.

In addition, the broadband access that is coming through cable, DSL, and ISDN will cause yet a third digital divide to appear in the next few years. As broadband access reaches higher penetration rates, we can expect to see a gap in broadband adoption that mirrors today's gap in PC ownership. Only those with broadband access will be able to take full advantage of the next generation of Internet services, again leaving many behind.

Our report's third and final key conclusion is that current short-term tactical solutions, while an important first step, will not by themselves be a long-term answer. These tactical solutions, such as PCs and Internet access in libraries and kiosks, provide critical points of entry. However, for the longer term, public policy must focus on bringing access to people in their homes, where Internet use can become fully integrated into the full spectrum of people's daily lives. A number of studies, most notably one in Hundred, West Virginia, have shown a dramatic difference in student achievement levels when they are given a laptop and home Internet access versus when they are given access only at school. Think of your own children and the enormous benefit they receive from having a PC at home.

One possible approach to closing the digital divide is for government to encourage business strategies that will accelerate home Internet access. Policies such as tax credits for providing Internet access to employees and telecommuting could encourage businesses to provide low-cost Internet access for their workers. In addition, governments must carefully evaluate their own workplaces for opportunities to close the digital divide. Programs to provide low cost PC and Internet access for all government employees would have a large impact on closing the digital divide and on insuring that government employees are comfortable and proficient with information technology.

Over the past few years, I have seen the Internet revolutionize industry after industry. Today, government sits on the precipice of some very profound changes as well. I applaud the Firstgov initiative as an important first step toward realizing the incredible benefits that technology can bring to the relationship between our citizens and our government. Our research on the Digital Divide, however, graphically demonstrates just how far we must travel before we can make these benefits truly available to everyone.

In your efforts to use technology and the Internet to transform government, I would urge you to follow the lessons that we have learned from successful businesses in the private sector. One best practice that the Firstgov project has successfully followed is to iterate development and deployment. There is always a tremendous temptation to over-study and to over-engineer web solutions. The far better approach is to quickly get a site out to the users, and then to iteratively improve the site over time. This is the model that Firstgov has followed.

Your next great challenge will be to truly respond to the ever-growing and ever-changing needs of your constituents. You will need to learn to allow your "customers" to dictate not only the future of Firstgov, but the future direction of government as well. Just like the successful businesses of today, you will need to learn to be dramatically more open and adaptive.

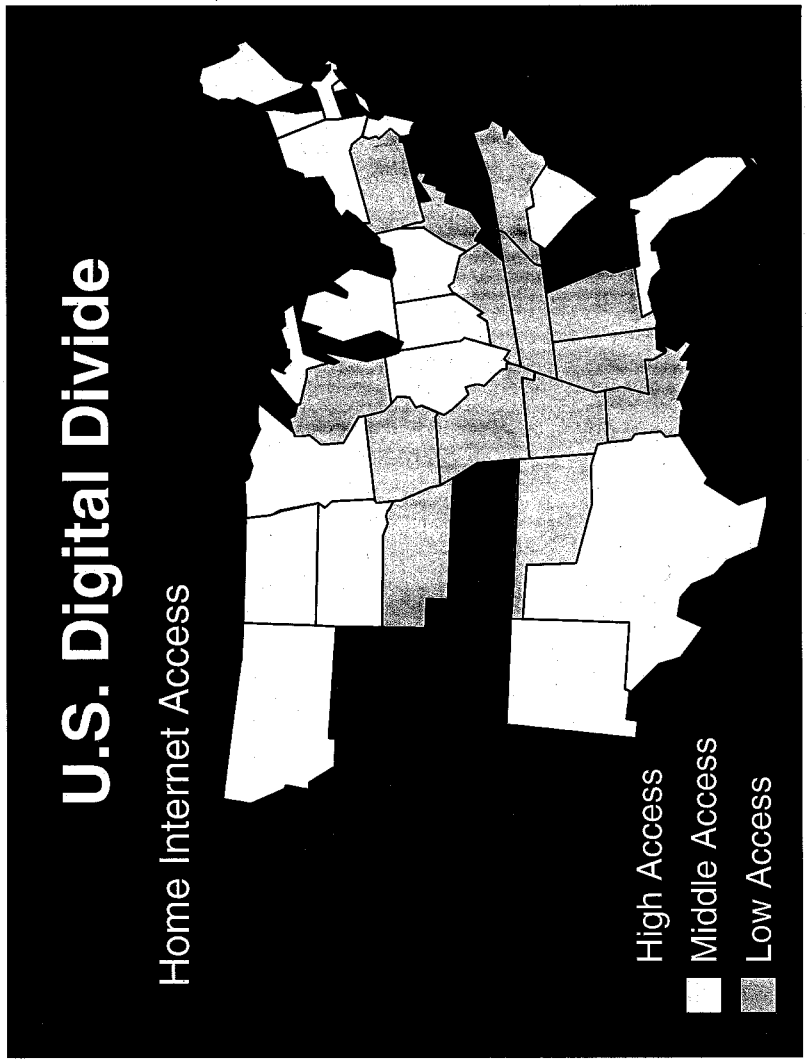
There is ample reason to believe that your role as elected representatives will change dramatically in the next few years as the digital divide is eliminated. What will be the role of elected officials in a fully wired world in which the opinions of the citizens can be known instantly and completely on any subject? At what point will some citizens seriously suggest that the need for having elected officials has been eliminated by the Internet? Only your vigilance in using the Internet to rapidly respond to the evolving needs of your constituents will keep these sentiments in check.

Our form of constitutional government has adapted to significant technological advances in the past. In the 19th century, railroads and the telegraph began to eliminate both time and space as obstacles to commerce and communication. In the process, they opened the settlement of the West and transformed the relationship between citizens and their local, state and federal governments.

In the 20th century the telephone, radio and television became the primary instruments of individual expression and instantaneous information. And we are only just now beginning to understand their full impact on our society. At each stage, representative government evolved to meet the needs of an electorate educated and empowered by new technological tools.

We all welcome the economic benefits that will flow from the closing of this divide. But we all need to anticipate and address its social consequences as well. Most importantly, we must all ponder how best to strengthen our political institutions in a fully wired world that will demand both instant information and instant answers.

Thank you.


U.S. Digital Divide
Home Internet Access
High Access
Middle Access
Low Access

Mr. HORN. Dr. McDermott, any other thoughts? And then Mr. McClure is the wind up.

Dr. MCDERMOTT. I think the only thing we would add is that we heard today, and we have heard previously, that anybody can spider government agency Web sites to the depth that Fed Search has been allowed to, and that has, from what we hear—we haven't tried doing that, that has not been the experience of outside government entities that want to do that.

We have also been told that nobody else wants to do that to the depth that Fed Search has, and I don't know if that's true, but we would want to have a question addressed whether that is the case that anybody could go into that depth as frequently as it seems that Fed Search is being permitted to do it, and if GSA or whoever facilitated this for Fed Search would also be willing to facilitate it for other entities, private sector or nonprofit.

Mr. BREWER. I would be happy to address that. We have got every single document by spidering. There is no document data base we didn't get any other way than by going to visit the Web site ourselves. So anybody can do this. You don't even need to be a corporation. A grad student can do it.

We did warn agencies that we would be visiting the sites, but that's actually not required on the Internet. People can visit as much as they want.

Dr. MCDERMOTT. But we have heard that agencies block outside government folks from coming in and spidering because of system demands, for all sorts of reasons, that we have been told that by Web people.

Mr. BREWER. I believe that we follow the same blocking restrictions. However, if there is stuff that we have crawled that for some reason you can't get to, it is not that hard to get the raw files. But I do want people to understand that we are going to do it one way and if you want to use our servers, you can do it at cost if you are a business. If you want to do it a different way, go do it a different way. There is nothing stopping you.

Dr. MCDERMOTT. It was just a question.

Mr. BREWER. I would be happy to help remove any such boundaries. Again, this is a catalyst.

Dr. MCDERMOTT. This is not aimed at you.

Mr. BREWER. Yes. I think it is definitely worth a discussion, but you have a lot of options here. You can partner. You can do it yourself. You can get it from us at cost, but we are in fact, you know, still just a charity and we can't subsidize other businesses, and in some sense they are not entitled to the data base. We are giving it to them because that furthers the goals here.

Mr. BARRAM. Let me just add one thing to that. You know, there are a number of search indexes that have collected government pages. They just don't have all 27 million. You know, the example I have used is that there may well be a page that a scientist somewhere put up that describes how he created garlic flavored ice cream. If you are a commercial Web search engine, you may think I don't think I want to spend any time chasing that down because my customers don't really care. So economically, you are going to have many fewer pages.

Mr. HORN. Usually, we can't hear the witness. Not only is it cookies, it is balloons popping.

Mr. BARRAM. So anyway, there are a number of search engines out there that have searched a number of government pages. We just have them all through this mechanism.

Dr. MCDERMOTT. I just wanted to say——

Mr. HORN. Let me ask Dr. Brewer this. In 2 years when the Fed Search Foundation dissolves, would a new contractor have to develop this data base from scratch?

Mr. BREWER. I am happy to discuss it with them but in practice, yes, because they will have their own software systems and the data gets stale anyway. It is not like you can take a snapshot of it and say this is it, here it is. It changes every single day. But I think, you know, there are ways you could help that transition, but it really depends on who it is and what system they are using. But again we did it in 90 days. They could do it in 90 days, too. It is not insurmountable.

Mr. HORN. Mr. Fleisher, in your written testimony you mention that a number of the public and private policy initiatives are currently addressing the digital divide. Could you provide a couple of specific examples of that?

Mr. FLEISHER. I think in particular there has been a focus on trying to get publicly available Internet access through libraries and kiosks, and I think that has been a key public policy focus. We believe that is a good first step, but just as you can understand how—and a number of studies have shown how when children have Internet access at home they do better in the school than when they have Internet access only at school. The same is true for the adult population.

Mr. HORN. When I saw that, I thought wouldn't it be wonderful if the child comes home from school, can press the buttons and get access that there would be a literacy program, perhaps, for their parents? It seems to me that would be a worthwhile educational endeavor because a lot of them are completely illiterates, not just in what they are doing with the computer—they can do that with a few things—but their own lack of literacy and that would really help a lot.

Mr. FLEISHER. We believe that anything that we can do to find the 50 million U.S. adults that we believe in the next several years will still be without access and help those people have access to the myriad of programs, whether it is FirstGov or others that will become available, is, you know, one of the most important tasks at this point. Those people will truly be left behind because, as you point out, it is the new illiteracy.

Mr. HORN. Yes.

Mr. McClure, do you want to wind it up?

Mr. MCCLURE. Yes, I have just two comments to make, Mr. Chairman. One is in response to a question you posed a moment ago about the importance of security. Again, in my written statement and in my oral statement, I was making reference to security provided on the FirstGov site. I do agree with Mr. Barram that obviously the protection of the agency sites is the real site of activity where you want stringent computer security measures in place. As FirstGov evolves, and it could indeed become the central portal for

the U.S. Government for the citizen to access government, it is critically important that security, even of the FirstGov site itself, be maintained so that it is reliable, it is stable and it is not subjected to any kind of obstruction or tampering.

Also, the data base that is maintained either by Fed Search or by some other private entity contains a voluminous amount of government information, and as other contacts are made with that data base which are potentially going to take place in the future, the security of that data base will be important. It is not a trivial matter or task, regardless of the fact that it is publicly available information already.

I also wanted to mention to Mr. Turner in his question a moment ago about the use of advertising, there are two studies that we can submit to you for the record. One is from NASIRE, who you have testify rather regularly in front of this committee, representing the State CIOs. They have conducted a study which I think is very useful for the committee to look at on the use of portals in State government. Most State portals are being maintained and built by the State governments themselves. There are others that are maintained totally by vendors. Of those that are being maintained by vendors, transaction fees are commonly being allowed to be used to pay for the cost of the operation and maintenance of those sites, and I think that information is just good to have in front of you.

The second is a study that has just been released by Professor West at Brown University, in which they focused on a survey of 1,800 public Web sites, State, local and Federal, and they found in roughly 2 percent of those Web sites advertising is allowed. This would be obviously the State and local sites.

So advertising is taking place on government Web portals at the State and local level; again, a reference point and perhaps the two studies can shed some information.

Mr. HORN. Well, without objection we will have those studies put in the record at this point.

[The information referred to follows:]

NASIRE

REPRESENTING CHIEF INFORMATION OFFICERS OF THE STATES
Digital Government Committee

Preliminary Survey of the Digital Government Landscape

The word "digital" carries weight beyond its literal definition. Most of us can remember a time before "digital"—when life was analog. Our audio recordings were entrusted to such inefficient media as vinyl and magnetic tape. Now we enjoy CDs, and soon, with DVDs, ADSL, DSL, fiber optics, and digital cell phones, we'll enjoy digital video and more. Thus, when we join the words "digital" and "government" we imply a break with a previous, less efficient era in which government services were delivered exclusively across counter tops, through the mail, and—if we were lucky—over the telephone. We look forward to a day when any citizen will be able to conduct most transactions with the government via the Internet backed up by streamlined business processes.

Toward that end, NASIRE recently conducted a preliminary, ten-question survey of its member CIOs. The survey was intended to gather basic information about the status of portals in the states. It also took a cursory look at related issues such as CIO authority, telecommunications authority, public access, and handicap accessibility, which are integral to the development of portals. The survey garnered responses from 30 states representing 73.2% of the U.S. population.[1]

The results of that survey are encapsulated in this discussion paper. It is hoped that the discussions held at NASIRE's 2000 Mid-Year Conference in Asheville, North Carolina will set an agenda for future research and guidance to be provided by NASIRE through its recently formed Digital Government Committee.

Portals: Development and Funding

History will likely look back on these formative years of digital government in the states as being dominated by the rise of the "portal," which has been defined as "an umbrella web site or a starting point that provides users with links to the information *they* want" (emphasis added).[2] Twenty of the responding states, representing 49.4% of the nation's population, believe that their sites are portals. A few of these portals have existed since the early 1990s, but most have come on line since 1995. Eight of the ten states (23.3% of U.S. population) without a portal expect to have one on line within a year.

Portals have been replacing web sites that were arranged like directories, or virtual bureaucracies, of state agencies, leaving the visitor to determine which agency might provide the desired goods or services. Portals are presently organized along functional lines (e.g., travel and tourism, employment, procurement, state employee services) and might be advancing toward

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[1] Source: ST-98-1 "State Population Estimates and Demographic Components of Population Change: July 1, 1997 to July 1, 1998" Population Estimates Program, Population Division, U.S. Bureau of the Census.
[2] National Governors' Association (NGA), "States on the Internet," 26 February 2000, <http://www.nga.org/Pubs/IssuesBriefs/2000/000226StatesInternet.asp>, (2 March 2000).

"my gov"—a structure that is built around the "life experience" of a citizen.[3] This structure could be compared to sites such as MyAltaVista or MyNetscape, which provide mass-customizable web pages geared to each and every user's particular needs and interests.

Two types of portals have emerged. They can be similar in presentation, but differ in their construction. One type is the state-provided portal. Twenty-three states, representing 64.5% of the nation's population, report that their portal or web site was developed internally. Twenty-two of those states also maintain their site; one is maintained by a vendor. The other type is the vendor-provided portal. Seven states, representing 8.7% of the nation's population, report that their portal or web site was developed with a vendor. Six of those sites are maintained by a vendor, one by the state. Eleven states (18.9% of U.S. population) plan to develop a new portal (four states) or expand an existing one (seven states) with internal resources. Sixteen states (39.6% of U.S. population) expect to develop a new portal (four states) or expand an existing one (12 states) with a vendor.

The term "self-funding," which means the web site pays for itself by way of transaction fees charged to users of certain services, is often narrowly applied to vendor-provided portals; however, a state-provided portal could be self-funding in the same way. Among the 16 states planning to build a new portal or expand an existing one (cited above) with a vendor, 11 (23.3% of U.S. population) plan to compensate that vendor through a transaction-fee arrangement. Moreover, a portal could provide a return on investment via on-line advertising in the same fashion that businesses advertise on state-provided signposts along interstates. One expert has asserted that many governments could pay for their digital government efforts entirely from on-line advertising.[4]

Vendor-provided portals usually require special legislation to allow the state or vendor to charge access to public information. These charges often take the form of "convenience" fees, which come in addition to the cost of the basic transaction, but spare the citizen the opportunity cost of leaving work, waiting in line, or dealing with other hindrances. International Data Corporation has estimated that the potential market for on-line government services will exceed $100 billion by 2008.[5] Approximately 90% of the information is available to the public for free. The other 10% is available to "premium" users.[6] These premium services are often sold to businesses requiring access to large amounts of motor-vehicle records, business financing statements, court information, and legislative proceedings.[7]

Transaction fees from vendor-provided portals are split between the state and the vendor with the state taking the larger share, usually 80%.[8] The state's income from the portal might flow to the state's general fund, to an incentive fund for agencies that join the on-line initiative, an enterprise-wide IT funding pool, or any combination thereof. State governments have charged fees for access to public information, facilities, and services in the past (e.g., postage,

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[3] P.K. Agarwal, "Portals: The Path to E-Everything" Government Technology, March 2000, <http://www.govtech.net/publications/gt/2000/mar/pov/notesfromthefield.shtm> (05 April 2000).
[4] Thomas Davies "E-Gov Can Turn Assets Into Profits" Washington Technology, 3 April 2000, <http://www.wtonline.com/vol15_no1/state/1188-1.html> (11 April 2000).
[5] Ruhan Memishi, "The Next Frontier in E-Commerce – E-Government," November 1999, <http://www.sdr.com/news/990920_pr77.html> (31 March 2000).
[6] Tod Newcombe, "Government Embraces Internet Portals" Government Technology, March 2000, <http://www.govtech.net/publications/gt/2000/mar/pov/internetportalsfeature/internetportals.shtm> (31 March 2000).
[7] Ibid.
[8] Ibid.

parks and recreation facilities, information requests, transactions by mail). Moreover, portal vendors can leverage vast amounts of information. One portal vendor derived 71% of its revenue in 1998 from two data resellers.[9]

Portals: CIO Authority, Public Access, and Accessibility

If citizens desire to see government as a seamless operation without distinctions between agencies and branches, portals are a means to presenting that appearance. However, if that portal is to be more than just a façade, hiding the divisions and inefficiencies of a bureaucratic organizational structure, someone might have to be vested with the authority to bring agencies and services on line with consistent appearance, standards, governance, and accountability. The National Electronic Commerce Coordinating Council (NEC3) has declared:

> Each state must determine the most appropriate model for its operations, and best practices in each model should be shared with other states of similar construction. Regardless of structure, the most critical factor for success [in implementing electronic government] is a clear direction communicated with both authority and responsibility. Responsibility for implementation should rest with an empowered leader, such as the CIO.[10]

States were asked if their CIO has authority over the state's web site or portal. Twenty-four states, representing 52.1% of the nation's population, reported that their CIO did have such oversight authority. Six state CIOs (representing 21.1% of U.S. population) do not. Those with authority over their state's web site were asked if they could enforce consistent standards for information and appearance as well as governance and accountability. All 24 claim to have such authority over the web-site participation of executive branch agencies. Four (8.5% of U.S. population) claim such authority over their states' judicial branches. Six (21.3% of U.S. population) have authority over their state's legislative branches. Three (7.5% of U.S. population) have authority over K-12 public schools systems. Four (10.0% of U.S. population) have authority over public technical/community colleges. Six (22.8% of U.S. population) have authority over public colleges/universities. Among the respondents, seven CIOs reported having some authority beyond the executive branch. Three CIOs claimed authority over all of the areas above.

So long as most CIOs do not have absolute, enterprise-wide authority, they will need to develop working relationships with their peers in the agencies, council of state offices, and branch IT offices along with advisory and governing boards. The Harvard Policy Group on Network-Enabled Services and Government offers advice to stakeholder CIOs: "Remember that your job is not technology per se, but technology in support of organizational strategy and change management; good infrastructure and good relationships with management will be critical."[11]

Part of presenting a seamless perspective of state government will be the necessity of getting all—or at least the critical—services on line. At the federal level, the Vice President is

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[9] Ibid.

[10] "Electronic Government: A Blueprint for States," December 1999, <http://ec3.org/Blueprintv3.pdf> (11 April 2000), 11.

[11] "Eight Imperatives for Leaders in a Networked World: Guidelines for the 2000 Election and Beyond," March 2000, <http://www.ksg.harvard.edu/stratcom/hpg/eightimp.pdf > (31 March 2000), 12.

pushing for a single "mega-site" where citizens can learn about services, find contact information, and fill out forms for the top 500 services by December 2000.[12] Meanwhile, the United Kingdom is pushing to have all government services on line by 2005.[13] The European Union as a whole is working toward "generalized access" to "main basic public services" by 2003.[14] National and international decisions such as these might affect the competitiveness of states in the global marketplace. So far, 13 states, representing 31.7% of the nation's population, have gubernatorial or legislative directives to get public services on line. Seventeen states (41.5% of U.S. population) have no such directive. As states choose which services to put online, they might try polling the citizens as Arizona is doing on line.[15]

Guaranteeing public access to on-line government services will require suitable Internet connections for all citizens—many of whom do not yet have Internet access at home. This will involve access to telecommunications networks and public terminals for all communities (i.e., overcoming the digital divide). The number of households with access to the Internet in 1998 ranged from 13% to 44% in the various states.[16] Citizen Internet access within a state varies even further when broken down demographically. Twenty-four CIOs, representing 47.0% of the nation's population, report having authority over their states' telecommunications networks. Six (26.2% of U.S. population) reported that they do not. However, 26 states (64.7% of the U.S. population) report that they have some plan in place to expand public access to on-line services. Four (8.4% of U.S. population) reported that they do not.

An emerging concern for digital government is accessibility for citizens with sensory and other physical impairments. The Federal Access Board has solicited public comment (through May 30, 2000) on a compilation of rules for implementing Section 508 of the Rehabilitation Act.[17] While these rules do not necessarily apply to the states, Mike Benzen, CIO for the State of Missouri and chair of the State Information Technology Access Coalition (SITAC), believes they soon will. States might want to weigh in on this issue and make accessibility a part of their web-development process. Redesigning a web site or network for accessibility after it is on line is much more difficult than doing so in the development stages. Currently, 24 states, representing 60.5% of the nation's population, reported that they plan to address accessibility issues. Most of these plans are still being developed. However, a few states are already moving toward Bobby-level compliance.[18] Two states (7.3% of U.S. population) reported no plans at this time.

Barriers

The state CIOs were asked to detail the barriers they face in implementing digital government. Their complete responses are as follows:

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[12] Katy Saldarini, "Gore announces e-government strategy" GovExec.com 20 December 1999, <http://www.govexec.com/dailyfed/1299/122099k1.htm> (4 April 2000).
[13] Reuters, " Britain to Deliver All Services Online by 2005" The Standard, 30 March 2000, <http://www.thestandard.com/article/display/0,1151,12564,00.html> (3 April 2000).
[14] Ibid.
[15] Government Information Technology Agency (GITA), "Arizona @ Your Service Voting Box Ballot," 10 March 2000, <http://gita.state.az.us/voting/> (12 April 2000).
[16] National Telecommunications and Information Administration (NTIA), "Falling Through the Net: Defining the Digital Divide," July 1999, <http://www.ntia.doc.gov/ntiahome/digitaldivide/FTTN.pdf> (12 April 2000), 30.
[17] U.S. Architectural and Transportation Barriers Compliance Board, "Standards for Electronic and Information Technology," 31 March 2000, <http://www.access-board.gov/RULES/508nprm.htm> (3 April 2000).
[18] Please see <http://www.cast.org/bobby/> for further information.

- Money; skill; senior executive time and attention; willingness to change existing business process; silo approach to development; investment in legacy architectures.
- The diversity and complexity of our state will be the biggest barrier of implementing E-Government.
- Pace of technology change, access to skilled resources, privacy and security concerns and citizen access to internet services (Digital Divide)
- Cultural Organizational Barriers
- Procurement
- Changing agency culture; promoting and getting citizens comfortable with doing business online.
- Education of Executives and Managers in the agencies to understand and look for business improvements via the web.
- Too much reliance on "me-too" one up applications weakens our vision
- Citizen privacy and security issues, change management for state agencies, accepting electronic payments, integration with legacy systems and financials and digital divide
- As with many other states, we must strive to overcome the existing culture and instead, provide a culture of teamwork, innovation, and change. In addition, challenges will be presented due to a short term budget problem.
- One of the biggest barriers to implementing digital government is the difficulty of integrating cross-agency transactions that involve the same end users. The vertical organizational structure of government including areas of authority, responsibility and funding are not conducive to the easy integration of web-enabled transactions focused on categories of users. Another significant barrier is that in the government sector, web enabled service delivery represents an additional service channel that must be maintained. Government cannot close off other delivery channels such as office visits, phone and mail as a way to fully realize the efficiencies that can be afforded by online transactions.
- MANAGEMENT ISSUES: - Culture and silo traditions; - extensive, sustained business end, BPR requirements; - need for more flexible organizational models. TECHNOLOGY ISSUES: - Update / integrate general enterprise architecture, infrastructure, standards and protocols; - e-government specific portal, middleware, back end etc. related technologies; - security, privacy and related issues; and - connectivity.
- Funding
- Funding, Legal Issues, Cooperation from all Government Entities
- Funding, culture, business expertise, and technical experience - in that order.
- Cost
- vision, resources, and coordination
- Existing reward system/structure promotes single-use, silo-based enabling of web services. Most agencies don't see the value in designing a service-based portal instead of web-enabling one process at a time. 2) Federal government continues to fund state agencies for achieving silo-based solutions which in turn prohibits the CIO or a central IT of taking a collaborative approach to digital government. 3) Inability for agency systems to share data. Most systems have been designed and built to satisfy a particular process. Interconnecting these systems behind the scene so that a citizen is asked to provide their name and address only once is quite a challenge (esp.

when multiple versions of the truth are out there). 4) Each agency defines and treats the same customer differently which produces its own set of challenges when trying to create a citizen-based or business-based portal. 5) Executive sponsorship backed by financial support. 6) Misunderstanding and confusion about what digital government means.

- Business process reengineering efforts to streamline operations and establishing customer service standards prior implementing an e-government solution.
- Lack of understanding by legislature and other decision makers of importance of digital government, and therefore need for funding infrastructure development.
- Funding and cooperation of state agencies
- Penetration of PCs into households
- Penetration to the citizen that requires the bulk of our services.
- Costs. Funding is difficult in every circumstance. We cannot realize immediate benefits from channel disintermediation because we need to maintain all channel forms. A statewide portal with a common look and feel is difficult because agencies and universities are autonomous.
- Traditional government procedures and strict government regulations, lack of technical expertise in some agencies, privacy and security concerns, implementation of public key infrastructure.
- Security and authentication issues, resistance of some business executives in government to re-engineer processes, and difficulty in bringing into state government the right web development and deployment skills.
- Addressing the issue of "stovepipe systems" that in actuality reflect the traditional lack of coordination among separately funded public programs; (b) lack of a consistent enterprise architecture that facilitates creating an on-line "single face of government" for our "citizen customers", particularly those receiving services from multiple agencies.
- Cost
- Agency culture of service delivery
- Up-front funding; need to change both external and internal business models
- Funding and justifying the additional infrastructure while the education process attempts to develop a TRUST and RELIABILITY relationship.

Action Items

The state CIOs were asked what NASIRE could do to help them implement digital government. Their complete responses are as follows:

- Best practices; lessons learned; reusable software modules with generic functionality; broker a common functional description of government that can be used in state after state.
- Continue to have state information executives network and discuss use of technology.
- Continued focus on research of some of the key concerns in implementing digital government
- Providing researched-based recommendations on state-of-the-art technologies; cost-effective services; fee structures; and security policy.
- Continue with the numerous established committees and excellent programs.
- Clearinghouse for best practices.

- Anything that shares what other states are offering or preparing to offer on the web helps us to educate our agency leaders on the opportunities. Also, I really like what I hear Kolodney is doing - a class in "process improvement" by making service available on the web. Maybe he would share his curriculum with the rest of us?
- Serve as a clearing house for design information (usability, metrics, best practices, and discussion forums
- Providing a general framework and guidelines for all states to address web accessibility (from SITAC); continue to support NECCC; states sharing experiences on e-government implementations and promoting use of best practices, particularly in the area of privacy and electronic payments infrastructure
- Support state initiatives and legislation that facilitate implementations, continue gathering information that can bring a macro image of what are the situations of the states, continue with your Best Practices document.
- NASIRE's role in coordinating and disseminating state government information to all levels is beneficial towards our efforts as well as helping formulate best practices in this endeavor.
- NASIRE can serve as a clearinghouse for information on best practices and various state approaches to digital government. The current interest in this area has given rise to a proliferation of requests for information and surveys that are often duplicative in nature. For example, the state of Texas has recently completed a multi-state survey on portals and the Center for Digital Technology and Progress and Freedom Foundation are conducting the Digital State series of comprehensive surveys. It would help to have a central repository of current information regarding what states are doing in this area so that inquiries can be directed to this site. Hopefully, this would also cut back on the number and frequency of surveys states are asked to complete.
- More focused, timely identification of best practices; e-government issue / solution focused forums, potential e-government exchange site, in conjunction with other associations, research organizations, private sector; potential issue briefs or model approaches (e.g. e-legislation) on e-government related concerns; broker or clearinghouse for potential public / private partnerships; and develop public education, information and marketing approaches and materials suitable for use by states.
- Share best practices
- Facilitate meetings with topics on digital government and provide one place for states to share information.
- Sharing news about successful approaches.
- disseminate best practices; 2) develop model standards and guidelines; 3) track federal initiatives and issues.
- Work with the federal government to ensure that funding to the states does not dictate a digital government direction that is inconsistent with that of the state CIO. 2) Create a national repository of components developed by other states that would be available for less fortunate states to take advantage of. 3) Raise Governor's level of awareness regarding the heavy lifting that comes with a digital government effort. 4) Feasibility of a national PKI?

- Continue emphasizing importance of d.g., and publicizing significant achievements in other states. Keep on communicating with state governors and legislatures on our behalf.
- Continue to serve as a clearinghouse for information about states efforts in this area
- Case studies and best practices
- Maintain accurate information of the various models. Post legal issues that arise. Promote multi government initiatives.
- Provide me with best practices and experiences of other states. Look into the future for me and anticipate what issues will be salient next. Anticipate where my Governor and Legislature will need advice on technology policy issues, like UETA, UCETA, privacy, taxation, congressional activity.
- Help us with the need to educate legislators, executives, etc. Materials, or even videos, that we can share with them to help them understand the vision and get behind it fully.
- We would like to see a forum or venue specifically oriented toward state officials whose jobs are analogous to our (authority) -- those whose responsibility is NOT necessarily the technical aspects of web-enablement, but rather the organization, logistical, or political aspects of how web-enablement projects are moved forward.
- Provide information and promote communication among states on best practices. In fact, NASIRE has been doing a good job with that in association with NECCC.
- Develop models for essential elements -- security, privacy, portals, etc.
- Clearinghouse of information on how policy decisions to charge for fees on e-government services are made.
- Keep us advised re: risks, hidden costs, success stories, "how-to" overcome the common barriers/obstacles.

NASIRE's Digital Government Committee

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Carolyn Purcell* (TX) Co-Chair
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Assessing E-Government: The Internet, Democracy, and Service Delivery

by State and Federal Governments

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Executive Summary

E-government refers to the delivery of information and services online through the Internet or other digital means. Many governmental units have embraced the digital revolution and are putting a wide range of materials from publications and databases to actual government services online for citizen use. Since e-government is still in its infancy, it is a perfect time to measure the extent of web service delivery and compare differences that exist across the 50 states and between the state and federal governments.

In this report, we review the current condition of e-government. Using a survey of state and federal chief information officers, a detailed analysis of 1,813 state and federal government websites, and an email response test, we studied what kinds of features are available on-line, what kinds of variation exists across the country as well as between state and national government sites, and how e-government sites respond to citizen requests for information. The analysis was undertaken during Summer, 2000.

In general, we find that the e-government revolution has fallen short of its potential. Government websites are not making full use of available technology, and there are problems in terms of access and democratic outreach. E-government officials need to work to improve citizen access to online informative and services. We close by making some practical suggestions for improving the delivery of information and services over the Internet.

Among the more important findings of the research are:

1) only 5 percent of government websites show some form of security policy and 7 percent have a privacy policy

2) 15 percent of government websites offer some form of disability access, such as TTY (Text Telephone) or TDD (Telephone Device for the Deaf) or are approved by disability organizations.

3) 4 percent offer foreign language translation features on their websites

4) 22 percent of government websites offer at least one online service

5) a few of the sites are starting to offer commercial advertising, which raises problematic issues for the public sector

6) 91 percent of the sites responded to a sample email requesting the official office hours of the particular agency and three-quarters did so within one business day

7) states vary enormously in their overall ranking based on our analysis. Texas, Minnesota, New York, Pennsylvania, and Illinois ranked highly, while Rhode Island, Delaware, New Hampshire, South Dakota, and Nevada did poorly

8) the best predictor of state rank was population size. Small states had access to fewer resources and had difficulty achieving economies of scale necessary for technology initiatives

9) in terms of federal agencies, top-rated websites included those by the Consumer Product Safety Commission, Department of Treasury, Department of Agriculture, Department of Education, and Federal Communication Commission. Poorly ranked agency websites included the National Security Council, U.S. Trade Representative, White House, U.S. Postal Service, and Thomas (the joint congressional website)

10) in general, federal government websites did a better job of offering information and services to citizens than did state government websites

11) judicial websites ranked more poorly on providing contact information than did executive or legislative sites

12) there is a need for more consistent and standard designs across government websites.

A Note on Methodology

This project is based on three sources of information. First, we undertook an email survey of chief information officers in 50 states and 38 major federal agencies. Names of state CIO's came from the National Association of State Information Resource Executives, the main professional association in this area (www.nasire.org). Names of federal CIO's came from the Chief Information Officer Council (www.cio.gov). Of the 88 individuals contacted, 35 answered for a response rate of 40 percent. Individuals were queried about their views of e-government, what kind of research they have relied upon in developing their sites, and how e-government has affected service delivery, cost, and efficiency.

Second, we completed a comprehensive analysis of 1,813 government websites (1,716 state government websites, 36 federal government legislative and executive sites, and 61 federal court sites). Among the sites analyzed were those developed by court offices, legislatures, statewide officials, major departments, and state and federal agencies serving crucial functions of government, such as health, human services, taxation, education, corrections, economic development, administration, natural resources, transportation, elections, and business regulation. Web sites for obscure state boards and commissions, local government, and municipal offices were excluded from the study. An average of 34 websites was studied for each individual state so we could get a full picture of what was available to the general public.

Rather than surveying chief information officials about what they have on line (which has been a research technique employed in other studies), this analysis examined the content of actual state and federal websites. Web sites were evaluated for the presence of 27 various features: office phone number, office address, online publications, online database, external links to other sites, audio clips, video clips, foreign language or language translation, privacy policy, advertisements, security features, toll-free phone number, technical assistance, subject index, frequently asked questions, disability access, services, digital signatures, credit card payments, email address, search capability, comment form, chat-room, broadcast of events, automatic email updates, push technologies that automatically send information to recipients, and personalization features.

We looked at the number and type of online services offered. Features were defined as services if the

entire transaction could occur online. If a citizen could download a form for a service and then mail it back to the agency for the service, we did not count that as a service that could be fully executed online. Searchable databases counted as services only if they involved accessing information that resulted in a specific government service. Services requiring user-fees or payments for access to the services were classified as premium services not accessible to all, and therefore were not included as general public-access services.

After each state was evaluated, the person doing the analysis wrote a set of summary comments outlining best and worst features of the website. These comments note unusual features and provide an overall impression of the website. Tabulation for this project was completed by Brown University students Kristine Hutchinson, Todd Auwarter, Nicole Scimone, and Melissa Iachan during Summer, 2000.

Third, in order to examine responsiveness to citizen requests, we sent an email to four offices in each state as well as to selected federal agencies: the Office of the Governor, the Legislative Branch, Judiciary, and a selected state (or federal) agency. The message was short, asking a simple question such as, "I am trying to find out when your agency is open. Could you let me know the official hours your office is open? Thanks for your help." Email responses were recorded based on the time it took for the agency to respond. The remainder of this report outlines the results that came out of this research project.

Background on E-Government

The use of the Internet to deliver government information and services has become a growth industry in the United States. Similar to the dramatic changes in e-commerce and e-trading, the e-government revolution offers the potential to reshape the public sector and remake the relationship between citizens and government.

In Georgia, for example, state-run websites allow citizens to apply for business permits and fishing, hunting, and boating licenses on-line. Kansas residents can file state tax returns on-line and ask tax officials questions through email. People in Washington, Alaska, and Wisconsin can download license forms. At the other end of the spectrum, there are a number of states that fail to offer official forms online and put only a small proportion of state agency material on the web for citizen access.

This wide variability in the extent to which web government is taking hold creates an opportunity to study how the e-government revolution affects public sector performance and democratic responsiveness. Unlike traditional government service delivery and e-commerce, which have been widely studied, there have been relatively few studies of the e-government revolution. It is not clear exactly how far the e-government revolution has progressed and what kinds of information and services are online.

At the normative level, concerns already have been expressed about the gap between technology haves and have-nots (the so-called "digital divide"), and whether e-government will exacerbate inequities among citizens. With studies indicating that women, minorities, senior citizens, and the poor lack access to computers and the Internet, there is a need to chart what services are ending up online and how citizen access is being affected.

When we surveyed state and federal chief information officers, 86 percent felt that e-government had improved service delivery, 83 percent believed it had made government more efficient, and 63 percent claimed it had reduced government costs. Twenty-nine percent felt Congress or their state legislature had been very helpful in developing e-government, 43 percent believed legislative institutions had been somewhat helpful, 17 percent said they had been not very helpful, and 11 percent were undecided. Forty-nine percent indicated they had relied on surveys, focus groups, or other kinds of market research in planning e-government activities, and 71 percent said they had developed reports or strategic planning documents to help guide their efforts.

As we outline below, our review of government websites indicates many public units have made progress in providing information and forms online, but not much progress at using the Internet for democratic outreach to their residents or building features that take advantage of the interactive strengths of the Internet. Some states have been slow to put accountability-enhancing material such as legislative deliberations, campaign finance information, and ethics reports online. There also are major differences between state and federal government and by branch of government and agency type.

Online Information

The various information features that government web sites have online was the first thing we examined. The vast majority of sites provide their department's telephone number (91 percent) and address (88 percent). A large proportion of sites, 80 percent, also provide external links to web sites outside the department. These links allow visitors to access further information that was not provided on the site.

Percentage of Websites Offering Various Features

Phone Contact Info.	91%
Address Info	88
Links to Other Sites	80
Publications	74
Databases	42
Freq Asked Questions	34
Index	33
800 Phone Number	25
Technical Help	5
Audio Clips	5
Video Clips	4

While most web sites provide the aforementioned information, not many web sites provide other useful forms of information. Only 42 percent provide any type of database and a mere 34 percent provide a list of "Frequently Asked Questions" (FAQs) with corresponding answers. Even fewer sites provide an 800 number (25 percent). From here, the percentage of sites with further information sources drops dramatically. Although many sites required the use of advanced software such as Adobe Acrobat Reader, only 5 percent provided technical support. For those who wanted an alternative to printed information on the web, their options were limited. Only 5 percent of sites provided audio clips and only 4 percent of sites provided video clips. Clearly, most government sites have not yet realized these innovative means of providing information to site visitors.

Security, Privacy and Disability Access

The virtually unregulated atmosphere of the Internet has prompted many to question the security and privacy of disclosing personal information on web sites. Thus, security and privacy warnings or protection devices are considered a valuable asset for government web sites, particularly those in which people can send personal information through the site. Unfortunately, few sites have such capabilities. Only five percent have some form of security notice on their site, and only 7 percent have a privacy policy.

Disability access is also important. If a site is ill-equipped to provide access to individuals with disabilities, the site fails in its attempt to reach out to as many people as possible. Only 15 percent of web sites had some form of disability access. To be recorded as accessible to the disabled, the site had to have either a TTY (Text Telephone) or TDD (Telephonic Device for the Deaf) phone number, which allows hearing-impaired individuals to contact the agency by phone, or be "Bobby Approved," meaning that the site has been deemed disability-accessible by a non-profit group that rates internet web sites for such accessibility (http://www.cast.org/bobby/).

Security by State

Despite the importance of security in the virtual world, there is wide variations across states in the percentage of websites showing a security policy. Kansas had the most secure sites, with 21 percent of its sites including a security statement. Fifteen states failed to even have a single site with a security statement, while thirty others that did have secure sites only had single digit percentage of secure sites.

Percentage of Websites Showing Security Policy

All Federal Sites	23%	*VT*	3
KS	21	*SD*	3
IA	14	*DE*	3
NY	13	*TN*	3
NC	10	*HI*	3
MI	10	*AZ*	3
MN	8	*IN*	3
MS	8	*TX*	3
AK	8	*IL*	2
MA	7	*RI*	2
LA	7	*MD*	0
AR	6	*ME*	0
NM	6	*MT*	0

CO	6	*SC*	0
KY	6	*OR*	0
WA	6	*OK*	0
CA	5	*OH*	0
ID	5	*NH*	0
GA	5	*NJ*	0
VA	4	*AL*	0
ND	4	*CT*	0
NE	4	*UT*	0
NV	3	*WI*	0
PA	3	*WV*	0
MO	3	*WY*	0
FL	3		

Privacy by State

Widespread concern about the privacy of information published and transmitted through the Internet has not led many government websites to add a privacy policy. Michigan has the most, with twenty percent of its state government sites having some sort of privacy policy. Over half of the states showed results of less than five percent of their government web sites having privacy features. Ten states, or one-fifth of all states, do not have any privacy feature at all.

Percentage of Government Websites with Privacy Features

All Federal Sites	35%	*ND*	4
MI	20	*WI*	4
NY	19	*LA*	3
MS	19	*MD*	3
KS	17	*NV*	3
CA	14	*SC*	3
TX	14	*PA*	3

OH	13	*FL*	3
MN	13	*NM*	3
WV	11	*AL*	3
IA	11	*SD*	3
MO	10	*IN*	3
IL	8	*GA*	3
UT	7	*ME*	2
NC	7	*CO*	2
NJ	6	*AR*	0
VA	6	*DE*	0
VT	6	*MT*	0
KY	6	*NE*	0
WA	6	*NH*	0
CT	6	*OK*	0
AZ	6	*OR*	0
HI	6	*RI*	0
ID	5	*TN*	0
AK	5	*WY*	0
MA	5		

Disability Access by State

When looking at disability access by individual states, it is clear there is tremendous variation in the percentage of each state's sites that are accessible. The majority of states have not made much of an effort to make their websites accessible to people with disabilities. Only 16 states have made even 20 percent or more of their websites disability accessible and 10 percent or fewer websites are disability accessible in 23 of the fifty states. Four states have no disability access whatsoever.

The states doing the best job on disability access are Illinois (62 percent of their sites being accessible) and Minnesota (50 percent). In these states, half or more of the sites are accessible to people with disabilities. Given the resources available to assist web developers in making their sites accessible, it is troubling that so few states have made much of an effort to do so. Without equal access for people with disabilities, the scope of access to e-government is limited.

Percentage of Government Websites with Disability Access

Illinois	62%	*Connecticut*	11
Minnesota	50	*Utah*	11
Oregon	39	*Arkansas*	10
Maine	38	*Massachusetts*	10
North Dakota	36	*Ohio*	10
Virginia	35	*All Federal Sites*	9
Washington	34	*Oklahoma*	9
Florida	29	*Tennessee*	9
Pennsylvania	27	*Indiana*	8
Kentucky	24	*South Carolina*	7
Missouri	23	*Georgia*	5
Montana	22	*Mississippi*	4
Kansas	21	*Wyoming*	4
Wisconsin	21	*Alabama*	3
Alaska	20	*Delaware*	3
Michigan	20	*Louisiana*	3
Hawaii	19	*Nevada*	3
West Virginia	18	*New Jersey*	3
Texas	16	*New York*	3
Vermont	16	*North Carolina*	3
Arizona	14	*South Dakota*	3
Iowa	14	*Rhode Island*	2
Idaho	13	*Maryland*	0
Colorado	12	*Nebraska*	0
California	11	*New Hampshire*	0
		New Mexico	0

Foreign Language Access

Many business sites have foreign language features on their websites that allow access to non-English speaking individuals. Unfortunately, government sites have made little progress on this front. The high population of immigrants attempting to adjust and become American citizens is one of the reasons foreign language access is important.

However, in our analysis, only 76 government sites (four percent overall) offered any sort of foreign language translation feature. By foreign language feature, we mean any accommodation to the non-English speaker, from a text translation into a different language to translating software available for free on the site to translate the page or pages into a language other than English.

The absence of these features on government pages is disconcerting, especially in the states which contain the highest foreign language speaking populations. As shown in the following table, a number of states have large non-English speaking groups, according to the 1990 U.S. Census. Nearly one-third of California residents and one-quarter of Texas residents, for example, are non-English speakers.

States with Largest Non-English Speaking Populations

CA	32%	*NJ*	20
TX	25	*FL*	17
NY	23	*MA*	15
AZ	21	*IL*	14

Yet despite the prevalence of non-English speaking people, most states offer little in the way of foreign language translation on their websites. Florida leads the list with 26 percent of its sites having foreign language adaptability; North Carolina comes in second with 14 percent of their sites providing non-English accessibility; Texas comes in third with 14 percent, New York fourth with 13 percent; Oregon with 11 percent, California with 11 percent, and Washington at 10 percent. There is an obvious discrepancy between the top non-English speaking states and the top states providing foreign language features.

Percentage of State Websites with Foreign Language Translation

FL	26%	*AK*	0
NC	14	*AL*	0
All Fed Sites	14	*DE*	0
TX	14	*HI*	0
NY	13	*IN*	0
OR	11	*KY*	0

CA	11	*LA*	0
WA	10	*MA*	0
AZ	8	*ME*	0
ID	8	*MI*	0
MD	7	*MO*	0
AR	6	*MT*	0
NM	6	*ND*	0
TN	6	*NH*	0
IL	5	*OH*	0
MS	4	*OK*	0
IA	4	*PA*	0
NE	4	*RI*	0
KS	3	*SD*	0
NV	3	*UT*	0
SC	3	*VA*	0
NJ	3	*VT*	0
CT	3	*WI*	0
GA	3	*WV*	0
MN	3	*WY*	0
CO	2		

Services Provided

Online delivery of services benefits both government and its constituents, as it lowers costs and makes services more accessible. Examples of specific online services include purchasing a hunting or fishing license, filing a complaint, or requesting a publication. E-government services in which the entire transaction can be completed online are revolutionizing the relationship between government and constituent. As many states boast, "It's time to get out of line and get online."

Of the 1,813 web sites surveyed, 22 percent (389 in all) contained one or more online services. Of these sites, 292 offered just one service. Only 57 sites offered two services. Just 18 sites contained three services. Five sites contained four services. Fourteen sites contained five or more services, with one site on its own containing 14 services, by far the most services of any site surveyed.

Percentage of Sites Offering Services

No Services	78%
One Service	16
Two Services	3
Three or More Services	2

There is a great deal of variation in the services available on state government websites. To emphasize the broad array of services, consider that the most frequent service found was the ability to order publications. Just 3 percent of all web sites offered this service, and the ability to order publications comprised approximately 14 percent of site services. Subscription to case info, a case information service found on Federal Court sites, was the second-most frequent service registering on 3 percent of total web sites. Online complaint filing and tax filing were next, with 2 percent each. The majority of sites feature only one service at most.

Examples of the range of services include applying to be a conservation volunteer to requesting an aircraft fly-over to voting for the state's new quarter design. The variety of services demonstrates the lack of standardization and coordination between agencies and departments within states, as well as the lack of communication between states.

Most Frequent Services

Order publications	N=57
Subscription to case info	53
File a complaint	40
File taxes	29
Reserve lodging	8
Order vital records	7
Renew vehicle registration	7

It is common practice for private enterprises to offer Internet shopping with the use of credit cards. However, of the government web sites analyzed only 3 percent (or 53 sites) accepted credit cards for services. This low number can be interpreted in two ways. First, governments are providing many services free of charge, and thus have no need to accept credit cards, or secondly, that government is lagging behind in terms of technological innovation. Only 9 sites allowed digital signatures for financial transactions.

Services by State

Of the 50 states surveyed, there was wide variance in the percentage of states' web sites with services. Kansas was first, with 48 percent of web sites providing some type of services. New Hampshire finished at the other end of the spectrum with just 3 percent of its sites containing a service. The state

mean was 19 percent, indicating that roughly 1 of every 5 state web sites contained one or more services.

Federal sites were far more likely than state sites to contain one or more services. Federal sites scored 70 percent, well above the highest state. Possible explanations include a larger budget, more scrutiny, and a greater focus on e-government.

Percentage of Websites Offering Services

All Fed Sites	70%	*WI*	18
KS	48	*NE*	16
KY	46	*GA*	15
IA	43	*ID*	15
PA	37	*AL*	14
FL	36	*LA*	14
NC	34	*UT*	14
MO	32	*WV*	14
OK	31	*VT*	12
SC	31	*AZ*	11
IL	28	*CA*	11
ND	28	*RI*	11
NM	28	*VA*	11
MN	26	*MD*	10
ME	24	*DE*	9
MI	23	*SD*	9
OH	23	*TN*	9
MA	22	*WY*	9
AR	19	*HI*	8
IN	19	*OR*	8
MS	19	*TX*	8
NJ	19	*NV*	7

NY	19	*CO*	6
AK	18	*CT*	6
MT	18	*NH*	3
WA	18		

Use of Ads

An aspect of the government websites we found especially noteworthy was the presence of advertisements. Non-governmental corporations' and groups' sponsorship of government websites was a novel finding in this project. Out of the sites visited, 44 had some sort of advertisement (2 percent). When defining what constituted an advertisement, we eliminated computer software available for free download (such as Adobe Acrobat Reader, Netscape Navigator, and Microsoft Internet Explorer) since they were necessary for viewing or accessing particular products or publications. Links to products or services available for a fee, such as commercial tax preparation software, were included as advertisements as were traditional banner style advertisements.

Examples of advertisements on the states' sites were for E-File (online income tax filing software available through purchase, various radio and television stations, Fidelity Investments, IBM, Hilton Hotels, Prudential, Pfizer, Barnes and Noble, Dow Chemicals, Compaq, and even NASA.

Democratic Outreach

One of the most promising aspects of e-government is its ability to bring citizens closer to their governments. While the technology to facilitate this connection is readily available, many government sites have not taken full advantage of its benefits. Government websites tend to offer more basic information than features that make their websites interactive. This interactivity is what serves as a democratic outreach-facilitating communication between citizens and government.

Percentage of Websites Offering Democratic Outreach

Email	68%
Search	48
Comment	15
Email Updates	5
Push Technology	5
Broadcast	2
Chat Room	1
Personalization	0

In our examination of state and federal government websites, we looked for several key features within each website that would facilitate this connection between government and citizen. The first of these features is email capability. In this instance, we determined whether a visitor to the website

could email a person in the particular department other than the Webmaster. If a person can merely look at information on a government website without being able to respond to that information or contact the department regarding his opinions on issues it is facing, the potential for two-way interaction is thwarted. On the majority of websites, this technology was available-68 percent had email addresses.

While email is certainly the easiest method of contact, there are other methods that government websites can employ to facilitate democratic conversation. These include areas to post comments (other than through email), such as message boards. Through such features, citizens and department members alike can read and respond to others' comments regarding issues facing the department. This technology is nowhere near as prevalent as email-only 15 percent of websites offer this feature. Fewer still offer real-time chat rooms. This feature provides the same benefits as message boards while allowing for immediate responses, more like an actual conversation. The number of websites offering this feature is even less-only 16 websites or slightly less than 1 percent of the total.

Enabling conversation between citizens and government is not the only way to bring citizens and government closer together. Making government more easily accessible is another component of this endeavor. There are a few features that make this possible. The first we examined was the ability to search the particular website. Nearly half of the websites had a search function. This function is important in that it makes the information available on the website more easily accessible by allowing a web visitor to search for information he or she desires. Another way websites can make government more accessible is by offering live broadcasts of important speeches or events. These can range from live coverage of Senate or House of Representatives hearings to coverage of the Governor's State of the State Address (among others, found on the Minnesota site). In all cases, broadcasts enable citizens to see and hear their elected officials speak on issues important to them. While this feature is significant, only 2 percent of websites made it available to their visitors.

The final way government websites can connect citizens with their government is by enabling them to cater the available information to their particular interests. There are several ways to achieve this. The first we looked for was the ability to register to receive updates regarding specific issues. This is known as push technology. With this feature, a web visitor can input their email address, street address, or telephone number to receive information about a particular subject as new information becomes available. Five percent of websites had this feature.

Another feature that government websites can use to tailor the information they provide to each individual citizen is through the capability to personalize the department's website. What this means for government websites is that a soybean farmer, for example, could go online and see information about crop prices, government subsidies, and perhaps other soybean farmers in the area. While this feature has the potential to be very useful in bringing both government and other citizens who share similar interests together, very few government websites offered this feature-only 7 out of 1,813 or less than half of one percent. Given the technology limitations we found available on government websites, it is clear that governments still have a ways to go to fully realize the benefits of digital democracy.

Democratic Responsiveness

While it is important to have email addresses available on government websites, they serve no purpose unless someone actually reads and responds to the messages he receives. To test democratic responsiveness, we sent sample email messages asking for information regarding official office hours to the governor and to one person in each branch of the government in each state (a total of up to four officials per state). We then timed their responses to our messages by number of days. As the following table demonstrates, government officials were highly responsive to emails. Ninety-one percent responded by answering our query.

Even more impressive, a significant majority responded within one day-73 percent. While a few

states took more than a week to respond, in general we found that government officials were very responsive to citizens' questions and concerns.

Response Time	N	Percentage
None	19	9%
One day	208	73
Two days	17	6
Three days	12	4
Four days	11	4
Five days	8	3
Six days or more	12	1

Overall State Ranking

In order to see how the states ranked overall, we created an index for each website based on twelve important features centering on citizen contact material, services and information, and quality of access. These features included offering phone contact information, addresses, publications, databases, foreign language access, privacy policies, security policies, an index, disability access, services, email contact information, and search capabilities. We focused on these dimensions because they are particularly important for citizen access to information and services and the equity of the access available to people with special needs. The index measured the presence of these features on each website and then multiplied the score by 8.4 to convert it to a scale running from 0 (having none of these features) to 100 (having all twelve features). These figures were averaged across each state's sites to produce a mean rating for each state.

The top state in our ranking was Texas at 51 percent. Every website in that state had at least half the features we considered important for quality citizen access. Other states which scored well included Minnesota (50 percent), New York (50 percent), and Pennsylvania (50 percent).

The states achieving the lowest rankings were Rhode Island (29 percent), Delaware (31 percent), and New Hampshire (32 percent). In general, large states ranked more highly in this study than small states owing to the economies of scale and budget resources available in bigger states.

TX	51%	*UT*	41
MN	50	*WV*	41
NY	50	*AR*	40
PA	50	*CT*	40
IL	49	*KY*	40
KS	48	*LA*	40

ND	48	*MD*	40
FL	47	*ME*	40
MO	47	*NJ*	40
OR	47	*NM*	40
IA	45	*TN*	40
NC	45	*WY*	40
WA	45	*OK*	39
ID	44	*AZ*	38
MI	44	*GA*	36
AK	43	*MT*	36
OH	43	*CO*	35
CA	42	*HI*	35
VA	42	*NE*	35
WI	42	*VT*	35
AL	41	*NV*	33
IN	41	*SD*	33
MA	41	*NH*	32
MS	41	*DE*	31
SC	41	*RI*	29

Explaining State Rank

In order to examine what factors explained state rank, I undertook a multivariate statistical model which looked at the impact of seven different state factors: overall population size, political complexion of the state (measured by factors such as the percentage of liberals and Democrats, respectively in each state as measured by Robert Erikson, Gerald Wright, and John McIver in their book, Statehouse Democracy: Public Opinion and Policy in the American States), overall state spending, and three state demographic factors linked to computer usage (percentage of senior citizens, college graduates, and blacks within the state, respectively, as judged by census estimates).

As shown in the table below, the only two factors that were statistically significant in explaining state rank were state population and the percentage of citizens who classified themselves as liberal. The bigger the state, the higher that state tended to rank on e-government. And the fewer liberals there were (or the larger the number of conservatives), states tended to rank more highly on our e-government index. State population was highly intercorrelated with state gross product (a measure of overall state wealth) (Pearson r = .99), so states that were big and wealthy were the ones in the best

position to take advantage of the e-government revolution.

Regression Model of State Ranks			
	Unstandardized Coeff.	Standard Error	Statistical Significance (t value)
State Population	.000000046	.00	3.7*
% Liberal	-.614	.26	-2.4*
% Sr. Citizens	.59	.43	1.4
State Spending	.00014	.001	1.1
% College Grad	.10	.20	.50
% Black	-.0045	.09	-.50
% Democratic	.0032	.12	.27

* $p < .05$

Overall Federal Agency Ranking

Overall, federal government websites did better than the states on our index rating. However, there was considerable variation even among federal agencies and departments. At the high end, the Consumer Product Safety Commission achieved a score of 92 percent, as did the Internal Revenue Service and Department of Treasury. Other agencies that scored well included Agriculture (84 percent), Education, (84 percent), and the Federal Communications Commission (84 percent). At the low end of the ratings were the National Security Council (25 percent), the U.S. Trade Representative (34 percent) and the White House (42 percent). The latter offered less than half of the features we considered important for quality citizen access.

Consum Prod Safety	92%	Gen Service Admin	67
Internal Rev Service	92	US House	67
Dept of Treasury	92	Dept Commerce	59
Dept of Agriculture	84	Dept Interior	59
Dept of Education	84	Dept State	59
Fed Commun Comm	84	Dept Transportation	59
Dept of Justice	76	Health/Hum. Services	59

Fed Elec Comm	76	Natl Trans Safety	59
Housing/Urban Dev	76	Cong Budget Office	50
Sec And Exch Comm	76	Eq. Opp Employ Com	50
Small Bus Admin	76	Off. Manage/Budget	50
Dept Defense	67	Senate	50
Dept Energy	67	Thomas	50
Dept Labor	67	US Postal Serv	50
Dept Vet Affairs	67	White House	42
Env Protect Agency	67	US Trade Rep	34
Fed Trade Comm	67	Natl Security Council	25

State-Federal Differences

Because e-government is a relatively new development, examining the data from a comparative perspective can be beneficial. It is clear from the initial examination that government in general is not taking full advantage of the benefits of the Internet. However, it is interesting to see whether this lack of innovation is consistent in federal and state government websites. By contrasting the data on federal government websites with those on state government sites, we found that the federal government is generally more advanced than state governments at quality access.

The largest discrepancies between state and federal sites are in the categories of database and services. Over fifty percent more federal government sites had databases and services than did state websites. Interestingly, the next biggest disparity between state and federal sites is in favor of state governments. Forty-three percent more state government sites have email capability.

	Federal Sites	**State Sites**
Database	94%	39%
Services	70	19
Email	27	70
Privacy Policy	35	6
Publications	95	72
Comment	35	14
Frequently Asked Questions	54	33

Tech Support	22	4
Security	23	4
Toll Free Phone Number	13	26
Links	92	80
Foreign Language	14	4

Of the twelve categories in which there was a disparity, federal government sites were better in ten. The only other category in which the state government sites had a higher percentage than the federal sites was toll free phone numbers. Thirteen percent more state government sites had toll free phone numbers than did federal government sites. Although email access and toll free phone numbers are important features, the fact that the state governments consistently provided fewer services and less information than did federal government websites indicates that state governments could be doing more with e-government to improve access for their citizens.

Differences by Branch of Government

Across branches, no one branch consistently outperforms the others. Judicial sites lag in terms of email addresses and citizen contact material, such as phone numbers and addresses. Legislative sites offer relatively few services, something that is not surprising given the fact that most constituents receive services through their individual legislators, not a central legislative office. Executive agencies posted the most contact information, congruent with their missions of providing specific services to public audiences.

	Executive	**Legislative**	**Judicial**
Phone	95%	76%	82%
Address	92	76	80
Publication	74	74	76
Database	37	74	61
Links	81	72	74
Audio Clip	4	22	3
Privacy	7	6	2
Phone800	29	12	5
Index	32	43	24
FAQ	36	22	30
Disability	17	10	5
Services	21	4	35

Email	72	76	34
Email Response	94	91	90
Search	47	60	38
Comment	14	8	17
Broadcast	1	20	0

Differences by Major Agency

Among five of the most crucial state agencies, there are great discrepancies in the percentage of particular features offered. For our study, we averaged the percentages of features across all health, human services, tax/revenue, elementary/secondary education, and corrections departments' web sites.

	Health	**Human Serv.**	**Tax/Revenue**	**Elem/Sec Ed.**	**Corrections**
Pubs	90 %	74 %	88 %	89 %	56 %
Database	42	24	39	54	39
Links	82	80	90	94	70
Privacy	14	4	10	15	2
Phone800	37	47	35	24	20
Index	46	22	27	61	33
FAQ	39	42	67	37	50
Disability	19	36	25	11	6
Services	16	13	67	20	6
Email	56	62	77	74	57
Search	70	51	56	70	37

While some departments showed high rates of particular features, other departments had very few. Some disparities were so great that it is important to note them. Services in particular produced a wide range of results across agencies. Sixty-seven percent of departments of tax/revenue offered

services, generally linked to online tax filing. However, among the departments of corrections, only six percent had services. Less than 20 percent of the remaining departments offered services.

The other important pattern is that in seven of the eleven feature categories, the Department of Corrections finished last in providing information, contact material, and services. For example, only 56 percent of Departments of Corrections across the country provided access to publications, nineteen percent below the next-lowest ranking area of Human Services. The highest-ranking department in terms of online publications was Health, with 90 percent providing publications. Corrections Departments also ranked far below the other departments in percent having links, online services, and search features, among other things.

Conclusions

To summarize, we find that the e-government revolution has fallen short of its true potential. Government officials need to incorporate advanced technology into websites in order to take advantage of the democratic potential of the Internet. As it stands right now, which admittedly is early in the revolution, there are problems of access and democratic outreach that need to be addressed. Few sites offer access to the disabled or non-English speakers. Most do not have visible security or privacy policies. Only one-fifth offer an online service.

These results have major ramifications for the functioning of democratic political systems. In order for democracies to improve the efficiency, effectiveness, and responsiveness of their governments, e-government planners need to expand the number and variety of services, improve access to the technological have-nots, and address crucial issues such as security and privacy. Given that e-government has the potential to renegotiate the social contract between government and public sector employees by its impact on work rules and the kinds of workers needed, it is no surprise that many government agencies have gone slow in their embrace of technology.

Beyond these results, we have several more general observations about the web sites we studied. First, we liked that several states (among them Washington, Indiana, and Connecticut) connected their web sites with a standardized system. These pages were linked to the opening page, and often the toolbar also provided an index and search engine. Second, several states employed pages that listed all online services. This allows for easy access to those services. We discovered that over 90 percent of email queries we sent received responses.

Not all that we discovered was quite so positive, though. We found that no state employed a consistent or standard design across their web site system. This was often confusing and did not give the web system a feel of coherence. The disparity between sites was quite evident concerning the comparison between legislative and judicial sites, which lacked features and content. These sites need to be brought up to higher standards. Furthermore, several sites did not contain a phone number or address, and many more had no email contact information. This was unacceptable, considering that even if the sites provided no services, a constituent could at least contact the agency. Finally, we were concerned that few sites were sensitive to disabled and foreign language speaking persons.

We recognize that the e-government revolution will continue to evolve. As technology warrants, new services and features will be placed online. In our recommendations, we hope to direct the course of web design for state and federal agencies by offering concrete suggestions that can improve organization, and make government more responsive and more accessible. With better organization, more contact information and methods, and more concern for accessibility, web sites of the future will improve the potential of e-government.

RECOMMENDATIONS:

- Improve web site organization and structure
- Bring state legislative and judicial sites up to the standard of the executive branch
- Post all phone, address, and email contact information
- Increase web site accessibility

Improve web site organization and structure:

Several states such as AccessWashington, Nebrask@ Online, and ConneCT (Connecticut) use a standardized web system that links all sites to the gateway. These states have more coherence and are easier to use because of the linked system. AccessIndiana includes an index and search feature on the links, making Indiana's web site easy to navigate. We applaud these features and urge other states to develop easy navigation instruments. A menu, index, and search feature render web sites much easier to use. Tool bars that are present on all pages eliminate the need for the constituent to continually scroll back to the agency's homepage. Several states, including Arkansas and Hawaii are linking all services to one page. This page allows constituents to view all services offered by the state. This is one stop shopping at its best. Having a consistent design for each state agency's web site would be ideal and would be beneficial to constituents.

Improve State Legislative and Judicial Websites

When surveying the web sites, it was clear that in some respects state legislative and judicial sites were not up to the same standards as executive sites. In general, non-executive sites have less information and are more difficult to use than those of state agencies. Legislative and judicial sites need to be brought up to the same standard and include more features and content. The differences we found by branch of government in quality of citizen access indicates there is a systematic problem with non-executive sites.

Improve Contact Information

Another recommendation concerns the lack of available contact information and services on government web sites. We emphasize our concern with this deficiency because the availability of contact information on government web sites is a vital means of connecting the people with their government. Contact information includes phone numbers and addresses published on the site, as well as accessibility to members of the departments through email. Without such vital information, it is impossible for site visitors to find out how to directly access the agency in person or by phone. Furthermore, it implies that the agency does not want to be contacted; thus the agency fails in its attempt to employ the Internet as a means of connecting the people with their government.

Efficiency is compromised when a site neglects to allow direct e-mail. On a positive note, sites that do have e-mail access already (sixty-eight percent of the sites coded) have an excellent rate of responsiveness. Ninety-one percent of the sites that we e-mailed responded, and seventy-three percent responded in only one day. However, thirty-two percent of sites still lack any e-mail capabilities, including three-quarters of the federal sites. This failure of the government to include a fundamental form of direct contact in their web sites marks a corresponding failure to reach out to an audience that may be unwilling or incapable of contacting that particular government agency directly by phone, by printed mail, or in person. Such a basic feature should certainly be included on any helpful government website.

Increase Website Accessibility

Finally, we are concerned with accessibility. If government websites are not accessible to all citizens,

the benefits of e-government are not fully realized. In order to avoid the "digital divide," in which citizens who do not have computers or are prevented from accessing information on-line as a result of disabilities or language barriers are disadvantaged when services and information are made more conveniently available via the Internet, governments need to consider accessibility when constructing their websites.

Using such services as the Bobby Approved website and providing TTY and TDD phone numbers, governments can assure that they have made their information and services accessible to their disabled citizens. Foreign language translation services are also readily available online. By providing links to free services such as Babel Fish (http://world.altavista.com) or providing language translations or translators on their own pages, governments can avoid disenfranchising the significant portion of the population that speaks languages other than English as first languages.

In addition to considering the disabled and native speakers of foreign languages, government should consider accessibility to the poor when constructing their websites. Offering premium services that require fees, no matter how minimal, inherently disadvantage the poor and restrict access of the services to people who can afford them. The money government saves in processing transactions online can be used to provide the services free of charge in order to prevent this limited access. Perhaps the most difficult thing to consider in the development of e-government is the digital divide in terms of people who own and know how to use computers and people who do not. Unlike foreign language and disability access, there is no easy solution to this problem. Rather, government must make a concerted effort to provide computers in publicly accessible places such as libraries or shopping malls, such as they have done in some states. E-government offers the possibility of bringing government closer to citizens, making it more convenient and more cost-effective. There is potential for e-government to enfranchise a much greater portion of the population than the dismal proportion that currently falls under the category. While improving government's efficiency, we must take care not to skew the benefits in favor of those traditionally more enfranchised groups.

Mr. HORN. What have you learned in looking at those? Because there has been a big discussion within the educational systems K through 12, should there be advertising in the classroom, this kind of thing.

Mr. MCCLURE. We haven't really looked at it to any great extent. It is something that obviously I think is worthy of people to examine and see how advertising policies are being pursued and the ramifications of it. Quite honestly, I think it is a growing topic of importance as they look at the funding for those portals in the future.

Mr. HORN. Does the gentleman from Texas, Mr. Turner, want to wind it up?

Mr. TURNER. Thank you, Mr. Chairman. I just wanted to get some comments perhaps from Dr. Brewer, maybe Mr. Barram, to give us some sense of where this may lead us. I have the sense this was just a first step. Obviously we have access now to information from all agencies of government at one site through this search engine, and yet the ultimate goal is to make government more consumer friendly to allow the citizens to do business with their government over the site, and how do you view this as an element of moving us down that road more rapidly than we otherwise would be able to go?

Mr. BREWER. You are right to ask both of us. I can speak to our part. I think the most important thing here is that we have now got agencies thinking about how they appear on the Web, how they want to be found and how they want to interact with the citizens. Frankly, that has never happened before, and I think that's just incredibly powerful.

So there are lots of things I think that could be better about FirstGov and Fed Search and the sites themselves. It increases in relevance, a more longterm relationship with citizens rather than just their each individual visit. Of course, that has privacy implications so it has to be done with their knowledge. But I think that's the kind of trust you want to build with the citizens, where they do trust you with some of their private information because they want you to know who they are.

So I think it is a very powerful road we can follow, but it starts with people caring, people in government and other places as well, caring about how citizens interact with the government. I think this is the most important effect of FirstGov so far, and in the longterm its main effect will be this just getting people to ask the questions. I think where the answers go, I don't know but, boy, I am glad we are asking the questions.

Mr. BARRAM. Can I add to that? On Flag Day of 1996 at GSA we gave everybody access to the Internet. We decided to do it and did it in a month or 2 months. Many people said what is that all about? And if you look now 4 years later, the people of GSA who have been using this technology, because it was the tool in the last part of the 20th century and now in the first part of this one, it was essential to the kind of productivity we wanted. People are doing the same things better but much more—and quicker, but much more they are doing totally different things; interacting, communicating, playing, being productive in totally different and better ways.

So agencies are going to get better, as Eric said. I think we will see a real push toward more citizen-centric interaction, interface with their government and this will be a major tool.

I was in Oregon this weekend for a wedding for my nephew, and one of my other sisters-in-law home schools her three children and she is very excited about FirstGov as a way to get to lots of information quickly. Her kids are very good at using this technology and it is a wonderful tool for them.

I am not sure I thought about that 90 days ago. So we are going to see lots of things like this happen where people are able to use the technology better and get to the government information better, and I think we will be very happy about that.

The most important thing is for us to do it, make it better and learn what people need and make it available.

Mr. HORN. Well, Dr. Brewer, we thank you for your generosity and for getting some action in this area, and I am sure it will be followed throughout the country.

I want to now thank the staff that put this hearing together from both the majority and the minority. J. Russell George, staff director, chief counsel; and to my left, your right, for this particular hearing Randy Kaplan, counsel; Ben Ritt, detailee from the General Accounting Office on our staff; Bonnie Heald, director of communications; Bryan Sisk, the clerk who moves those mics around and gets our ears back in sync; Elizabeth Seong, staff assistant; George Fraser, Trevor Pedigo, and Rachael Reddick, interns. You can see in the summer and fall we get a lot of great interns, almost at nothing, but experience is a lot. With the minority staff, Trey Henderson is the counsel for Mr. Turner; Jean Gosa, minority clerk; and the court reporter this morning is Mindi Colchico. We thank you for all you have done over the years with us.

So with that, we are now adjourned.

[Whereupon, at 11:40 a.m., the subcommittee was adjourned.]

[Additional information submitted for the hearing record follows:]

TPS

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Mr. Randy Kaplan
Washington DC 20510

29 September 00

Subject: FirstGov.Gov

Dear Mr. Kaplan:

TPS, is providing the following statement for the record on the website Firstgov.gov.

As I understand it the purpose of the Firstgov.gov website is to allow the user to find and retrieve U S Government information from all U S Government activities without the hassle of figuring out how or where the U S Government maintains the information being sought. Thereby allowing the requester to easily obtain the information being sought.

While the concept is sound, the execution leaves a lot to be desired.

Following are a couple of specific examples:

1. The Government is attempting to entice the user to sign up as a partner with the Government to assist the Government in its desire to expand their E-Commerce business solution. When you go to the screen containing the explanation of what a partnership would mean, and what would be required of the party signing up. All that is found is vague ambiguities that say absolutely nothing. There is absolutely no explanation of the Government's desired partnership. Therefore only a few would consider agreeing to it.

2. I proceeded to the page that implied it contained Federal Business Opportunities. What I encountered was a screen that contained an undefined acronym (FBO) and unfamiliar words regarding Government Procurement (eg. "POSTED"). To discover that this screen lead me to another screen. After three or four more screens I was shown what was called a synopsis, when in reality it wasn't a synopsis at all, it was the item name of what was being purchased. If I wanted to obtain a copy of the solicitation I would still have to go to one or two more screens. Not only was this extremely time consuming but I would have to repeat this identical process per Government Department, per Agency/Bureau etc.

In other words, another layer of bureaucracy, on top of another layer of bureaucracy, on top of another layer of bureaucracy, on top of another layer of bureaucracy, on top

of another layer of bureaucracy, on top of another layer of bureaucracy, on top of another layer of bureaucracy. How is this beneficial to anyone other than the bureaucrat ?

CONCLUSION

I find that:

1. The terminology is misleading and inconsistent at best. The terminology is not consistent with the words used by those involved in any kind of procurement. Thereby making it even more difficult and confusing to get where you are going.

2. The task of being all things to all people is unrealistic. Rather than trying to be as simple and clear, this website is needlessly complex and frustrating. Their motto should be "LESS IS MORE and MORE IS LESS"

3. The purpose was to provide a simple user friendly link to all government websites enabling the user to easily retrieve information. The purpose was not accomplished.

It is recommended that the website not be just another link (layer of bureaucracy) added to the already numerous government links (layers of bureaucracy), but a useful guide explaining how and where (in text, in English, by people who are knowledgeable from each Department that this website is going to link to for information) to obtain and/or find information from each government activity, and explain what that information consists of. With the linking being a secondary function not the primary function. Remember KISS (Keep it simple stupid).

Background of submitting organization.

TPS, Inc. is a U S Government certified VAN and has been since 1994. TPS's business is providing businesses with information on U S Government procurement actions. TPS's expertise is in computer system design, computer programing, U S Government specifications & standards, packaging & marking, procurement requirements, and contract management.

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Washington Office

ALA American Library Association

October 13, 2000

The Honorable Steve Horn
Chairman, Government Reform Subcommittee
On Government, Management, Information and Technology Government
2331 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Horn:

The American Association of Law Libraries, the American Library Association and the Association of Research Libraries appreciate this opportunity to comment for the record on the FirstGov.gov web site. Our associations and members have long-standing policies supporting the broadest and most effective access to all kinds of government information. We are clearly on record urging the federal government to provide for a centralized "one stop" approach for the public to access government information. The launching of FirstGov.gov provides the opportunity to establish good public policies to address the entire range of access to government information issues in this electronic era.

The federal government has an affirmative responsibility to develop and maintain the finding tools and search and retrieval systems necessary for the public to efficiently and effectively search and take full advantage of the vast storehouse of electronic government information accessible on the Web. We applaud the efforts of the Administration, Dr. Eric Brewer, and others who have worked on developing and bringing up the FirstGov web site. We also appreciate the timely and serious Congressional oversight and interest in this new service represented in your calling the October 2nd hearing so quickly.

We realize that the first release of FirstGov (like most web sites) remains a "work in progress," and thus we appreciate that the developers of FirstGov are actively seeking input about the usefulness of the site. We encourage all branches of government to continue to work to support, sustain, and improve services like FirstGov to enable the public to have more useful and efficient access to the federal government's electronic government information resources.

Moreover, we hope that the discussion and deliberations regarding the broader policy questions surrounding the FirstGov effort will continue beyond the October 2 hearing. The development of FirstGov and the attention it is receiving present a great opportunity for Congress and the government to launch a planning process focused on the full integration of and access to Internet-accessible federal government information. Such a process should address the issues of scope, depth, and relevancy of the information included; permanency of the information indexed;

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standards for usability and privacy; permanent public access, reliability and currency of the database, and many other policy issues. The library community welcomes the opportunity to further discuss these important issues with Members of Congress and the Administration.

Our specific comments here about FirstGov cover the following areas:

- The definition or scope of what FirstGov searches.
- The utility and usability of the Fed-Search search engine and the FirstGov subject groupings.
- The need for standards.
- The need for coordination and collaboration with other government locator and indexing efforts.
- The problem of permanent public access to electronic government information.
- The concept of Certified Partnerships.

The definition and scope of what FirstGov searches

It has been reported that the Fed-Search search engine indexes more than 27 million government web pages at .gov and .mil domains. FirstGov developers should also explore the vast extent of government information that currently is available electronically at sites that fall outside of these domains, for example, material that resides at .edu, .org, or .net sites that are funded primarily by federal monies or that are part of government/private sector partnerships. One example is the Stanford Linear Accelerator Center at Stanford University, a national physics laboratory located at an .edu Internet domain. Using ISP addresses to identify state and municipal agencies (if and when these levels of government information are included in FirstGov) also can become tricky. Policy questions such as the possible definition of "official" government information can be complex and need to be thought out thoroughly. A plan should be developed to determine how to include all government information, or, alternatively, how to display search results showing that other information repositories exist and how to access them.

Using the Fed-Search search engine and the FirstGov subject groupings

There are many policy as well as practical considerations that must be addressed regarding the Fed-Search search engine and FirstGov subject groupings. For example, the library community praises the FirstGov initiative to consolidate access to government information and services in a "one-stop" location. However, we are concerned about the nature of the agreements with the developers of the search engine and subject headings and if or how these services and products will be available or updated when the initial three-year agreement ends. The nature of this agreement has implications for the stability and reliability of the products and should be addressed as all stakeholders proceed to participate in and utilize FirstGov.gov.

The library community also has practical concerns about the search engine and subject groups based upon the extensive experience that librarians have in working with the public and accessing government information of all types. We have formed a group of reviewers that is already coordinating their comments and critiques. We will be communicating with the staff of FirstGov.gov to share these comments and provide input and suggestions based upon the day-to-day experiences of librarians and users in the field. These comments will be made in the spirit reflected at the FirstGov.gov website seeking feedback from users.

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The need for standards
The development and implementation of the FirstGov service provides the opportunity to consolidate the many Presidential, OMB, and agency-generated directives and standards for Web accessibility, usability, and archiving of electronic information. Ideally, a simple set of mandatory standards could be created for all government web pages which would allow effective metadata harvesting as well as ensure best practices for ownership statements, last date updated, accessibility requirements, and confidentiality and privacy protection. These standards, if applied to all federal web pages, would help solve some of the other issues addressed in this letter such as permanent public access and the need to define the scope of FirstGov's information universe.

Standards should also address issues such as privacy, disabled (ADA) access, and hardware/software issues, and metadata standards to enhance searching and relevance raking. Requirements should also be set for "ownership" statements, last date updated, and contact information for the public as well as privacy and confidentiality issues.

The need for coordination and collaboration with other government locator and indexing efforts
FirstGov.gov will need to address the coordination with and access to the other information locator and indexing activities of the Federal government. Questions also arise about the appropriate coordination with the Government Printing Office (GPO) and the Federal Depository Library Program (FDLP). Another challenge is whether FirstGov.gov is, will or can be Government Information Locator System (GILS) compliant, since the need for GILS is even more critical with the creation of a single, one stop portal such as FirstGov.gov.

Attention should also be directed to how to provide access to federally funded data that is not crawler-transparent. A good first step should be, for example, to require the agencies which provide databases and other complex resources (e.g. PubMed, ERIC, or the NTSB Aviation Accident/Incident Database) to create a meta-level web page describing the resource and how the public can obtain access. This meta-level page could be indexed by FirstGov and provide a good beginning to uncovering the vast ocean of federal information that does not reside in simple web pages.

Permanent Public Access
E-government's reliance on electronic only dissemination of information is forcing executive agencies into a role that was never before theirs and one for which they are ill prepared and ill funded to fulfill. By default they now must assume the responsibility for no-fee, long-term, ready access to electronic government publications for the citizens of this country because the statutory authority for this responsibility has not been given to any other entity. Unfortunately, the current practice of many agencies is to make quick, ad hoc, electronic "information life cycle" decisions based upon the short term limitations of budgets and systems storage capacities rather than the longer term information needs of the American public. This type of decision-making does not consider the important long-term and often irrevocable consequences of removing electronic publications from information systems that generally are designed to provide access only to the most current government information.

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More specifically on the issue of permanent public access: the Paperwork Reduction Act gives authority for managing executive agency information to the Office of Management and Budget, and the agency uses OMB Circular A-130 to carry out this authority. Circular A-130, last revised in 1996, includes the principle that government information is a "valuable national resource" and provides the public with knowledge of the "government, society, and economy – past, present, and future." Circular A-130 also defined an "information life cycle" as the "creation or collection, processing, dissemination, use, storage, and disposition of information."

The 1996 Circular also includes statements on records management that rely on the National Archives and Records Administration for the final disposition and storage of executive agency information. However, the mission of the NARA is archival preservation and does not include no-fee, ready access to government publications. The issue of permanent **public** access to Executive agency electronic publications was not addressed in the Circular.

When Circular A-130 was revised in 1996, most government agencies had no experience in the long-term management of public access to electronic information via vast sophisticated Web sites and databases. For many agencies the life cycle of electronic information did not extend beyond a one-to-five years span. Most of the important agency information was still distributed to the public in print or other tangible formats and the responsibility for no-fee, long-term, ready access was left to the Government Printing Office's Federal Depository Library Program.

Congress, historically, has recognized the importance of no-fee permanent public access to government information through the establishment and support of the Federal Depository Library Program. With the Printing Act of 1895 and later revisions to Title 44 of the U.S. Code, Congress through its oversight responsibility of the Joint Committee on Printing (JCP)for Congressional information and the distribution of government information insured that the public had no-fee permanent access to government publications through the Federal Depository Library Program. Under the JCP, no-fee permanent public access was ensured through the Federal Depository Library Program. In the 1990's, Congress acknowledged the growing importance of electronic congressional information and the need for public access. Through government information systems such as GPO Access and the Thomas Congressional Information Service, some electronic congressional publications are preserved for future public access. However, others, such as hearings, are frequently missed since no entity has statutory authority and funding to preserve these electronic-only publications for permanent public access.

In the short term, OMB should revise Circular A-130 to acknowledge that no-fee permanent public access to government publications is a fundamental responsibility of government. However, for a long-term solution, Congress must accept the same challenges their predecessors faced in 1895 and revise Title 44 of the U.S. Code to ensure the continuation of well-organized, permanent access to government information – regardless of format. This revision must apply the same principles of **no fee permanent public access** to electronic government information that were applied to tangible information products. A "404 File Not Found" error message cannot be allowed to replace no-fee, permanent public access to government information provided by the Federal Depository Library Program over the past 100 years.

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The concept of Certified Partnerships
The role of "certified partners" is not clear. The models established by these initial partnership agreements raise questions about the nature of these relationships. Now that FirstGov.gov is up and running, further public discussion should address a clarification of the options for and the roles of certified partners. GSA should seek agreements that protect the public's ongoing access to government information. The library community is particularly concerned about providing no-fee access to government information without commercial advertising. We are also concerned that some partnership agreements might be inadvertently taking steps to inappropriately privatize government information that should be publicly available.

The issue of no-fee, long-term, ready access to electronic government information is an issue that must be resolved if FirstGov.gov is to realize the full potential of E-government and meet the current and future need of citizens and businesses. Without a revision to existing federal information laws, the responsibility for resolving this very serious public access problem is fragmented.

The library community stands ready to work with you and all stakeholders as the development of these important government electronic information services expand and develop. Thank you for the opportunity to comment on the FirstGov web site.

Sincerely yours,

Emily Sheketoff

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