

The Information Technology and Innovation Foundation

“Turbo Government”:

A Bold New Vision for E-government

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Moving to a “turbo-government” model has the potential to dramatically boost the uptake of digital government services, cut costs for both government and users, and make the experience of dealing with government less frustrating.

It's been 12 years since the U.S. government went online. The first stage of e-government meant a passive presence on the Web based on information, but not citizen interaction. The public sector evolved to the second stage: developing Web applications that allowed individuals to interact with government, such as paying parking tickets and renewing drivers' licenses.

But these applications are still often quite user-unfriendly, too often designed around the needs of the agency, rather than the needs of the citizen. While most governments and agencies have made progress in moving to stage two, they have been slow to move to the third stage of e-government – create functionally oriented, citizen-centered government Web presences by breaking down bureaucratic barriers.

Some in government have pushed hard to get to stage three, but all too often, they've faced stiff resistance. By their very nature, governments have a hard time building applications that link together multiple agencies and programs, and an even harder time linking applications that cut across levels of government.

Few agencies see their job as helping users solve problems or access information, including information from other related agencies, other levels of government and even private-sector players. Rather, the default attitude is to present only their agency's information and applications. As a result, it doesn't appear that governments acting alone will any time soon make the kinds of fundamental changes needed to bring about true citizen-centered e-government.

This does not mean citizens must be permanently consigned to often frustrating Web interactions with the public sector. Governments can move beyond engaging with the private sector as e-government vendors and instead empower third-party, for-profit and nonprofit organizations as partners in the provision of e-government services.

Government and the private sector have already engaged in successful partnerships in numerous areas. One of the most widely used is tax preparation and filing. A host of companies, including H&R Block, Intuit (maker of TurboTax software) and TaxAct, have used software to simplify the complicated task of filing taxes. Because these firms are competing intensely for market share, they have strong incentives to make their programs as user-friendly and comprehensive as possible. Americans filed more than 68 million federal tax returns in 2005, exceeding 50 percent of all returns for the first time, according to the IRS. Moreover, because of the recently created FreeFile program, which lets certain taxpayers (e.g., low- and moderate-income taxpayers) use free online versions of these programs, many more taxpayers can now take advantage of these tools.

It's time to build on this model by empowering for-profit and nonprofit organizations to help citizens and businesses interact electronically with government, particularly in areas that are inherently complex or involve cross-agency and cross-government functions.

To do this, governments must think of themselves less as direct providers of e-government services and more as enablers of third-party integrators that tie together multiple agencies across multiple levels of government to package information, forms, regulations, and other government services and requirements in user-friendly ways.

Moving to this "turbo-government" model has the potential to dramatically boost the uptake of digital government services, cut costs for both government and users, and make the experience of dealing with government less frustrating. Intermediaries can play a key role in two kinds of tasks: building and operating function-based portals, and creating digital integration tools.

Policy Recommendations

It's time to take advantage of the power of information technology to simplify and streamline interactions with government. The challenge is not technology; the tools exist today to make interacting with government relatively easy. The problem is that government agencies and legislatures have little incentive to move to the third stage, and in many cases, they resist taking the next steps of creating a true technology-enabled citizen-centered government.

Achieving that vision will require that government engage in partnerships with the private for-profit and nonprofit sector to help them fully utilize these next-generation tools that are already working effectively. There are a number of steps governments should take to create this new model.

At the national level, the President should create a White House entity charged with identifying digital partnership opportunities, working with agencies to ensure data is available, and where appropriate, securing funding for new integrated e-government applications.

At the state level, governors should empower CIOs to integrate state and local service delivery online. Collectively state CIOs working through the National Association of State CIOs should help intermediaries develop cross-state e-government applications.

These offices should work with agencies to ensure governments readily provide information to third-party information integrators and others. "Once the data elements, business processes, and business rules of a governmental process or form have been defined, documented and published, anyone can do the work of government through a customer agent, commercial service or software product,"

said former Iowa CIO Richard Varn in *The Sawyer Principles: Digital Government Service Delivery and the Lost Art of Whitewashing a Fence*, a report by the Center for Digital Government.

This open standards process means that governments should define this information and make it available to third-party integrators and others. While this can sometimes be a big job, doing the task can also provide governments with important benefits, including learning to streamline and re-engineer their own processes. In addition, governments should structure their own electronic processes to accept transactions filed through third-party sites.

Governments should also provide funding when there is no likely commercially viable business model for an application, but where there is a clear public need. Most e-government applications are unlikely to be provided by the market without some government support. Some applications, particularly government to government applications, may not be able to generate adequate revenues from customers, advertisers, or sponsors. Other applications may be able to generate ongoing revenues, but may need initial seed funding. Congress can play a key role by providing funding and authorization for third-party systems. Yet this need not cost government more money. Indeed, the most cost-effective approach may be to have a third party develop one application rather than have each individual government reinvent the wheel.

In addition, before creating their own portal or digital applications, governments should first determine if third party, for profit or non-profit, organizations can provide the service. If a third party can provide the service as or more effectively, at the same or lower cost, and/or in ways that reach more people, governments should support third party efforts, instead of crafting their own

proprietary efforts. At the same time, government web sites should link to third party efforts. The model here is the IRS' "Free File" program which provides web links to providers that offer free online tax filing services.

Finally, governments should also ensure that third-party digital integrators employ effective security and privacy measures to protect citizen information. Third-party systems that collect personally identifiable information about citizens will only be trusted if the rules governing the use of that information are strict, clear and enforceable.

"Turbo-Government" Applications

Enabling such non-governmental players to play an increased role in e-government is consistent with overall trends in reinventing government for the new economy. In fact, rather than act as the sole funder and manager of bureaucratic programs, governments need to co-invest and collaborate with other organizations – networks of companies, universities, nonprofit organizations, churches, and other civic groups – to achieve a wide range of public policy goals. Many problems in the New Economy cannot be solved without government, but government alone can't solve problems.

Relying on collaborative networks does not mean that government should abdicate its policy responsibilities. It is dangerously naive to hope that private sector voluntary efforts alone will emerge in a sufficient scale to meet public needs. Rather, government needs to co-invest in these efforts and foster continuous learning through the sharing of best-practice lessons. Most important, the collaborative network model requires government to relax rigid bureaucratic program controls and instead rely on incentives, information sharing, competition, outsourcing, and accountability

to achieve policy goals. In the e-government space, this means that non-profit and for-profit intermediaries need to play key role. In particular, there are two kinds of government tasks they can play a role in: 1) information portals; and 2) complex applications, often involving multiple agencies.

Information Portals

It often makes sense to organize information by function rather than by government agency or jurisdiction. State and federal governments have developed some subject-specific portals, and while they are an improvement over agency-specific sites, most are not as user-friendly as they could be. A number non-governmental sites, however, have developed cross-jurisdiction, customer-focused applications that extract information from thousands of governmental organizations into a system that appears seamless to the user and brings consistency to data across many dissimilar providers.

One is Earth911.org, a non-profit organization established to empower citizens with community-specific resources to improve the environment. Citizens play an important role in protecting the environment, particularly through their actions on recycling, including recycling of hazardous household materials (e.g., waste oil, electronics, etc.). Even though many local governments have information online for how citizens can recycle material, it is often difficult to find.

As a comprehensive portal, Earth911.org receives environmental information from 10,000 localities across the United States, and allows residents to enter their ZIP codes to locate disposal/recycling sites for more than 250 items such as used oil, old tires, grass clippings or outdated medicines, and where to find electric vehicle charging stations. One can also access real-time

information like the water quality of your local beach, uploaded by local health officials, and if there are any other warning like red tide or fish advisories you will find them as well. And as a partnership with state, local and federal government Earth 911 officially provides this public service at all levels: from being the US EPA data exchange for Beach Water Quality down to local recycling sites.

Earth-911 has spun off other organizations for other applications. For example, Pets-911 is a portal for information on a wide array of pet issues, including finding a lost pet and obtaining a pet from a shelter. Over 14,000 government and non-government agencies and individuals maintain information voluntarily on these two networks. More recently the organization has established the national AMBER Alert Consortium, a national consortium developed for and run by state and local law enforcement agencies, broadcasters, transportation offices, emergency managers and a host of private organizations including the nation's leading technology companies and major market brands representing the automobile industry, casinos, and others. The portal allows law enforcement agencies to initiate an AMBER Alert for an abducted child through a secured network and to deliver the alert in real-time to all relevant parties as well as millions of people through numerous communication channels in a matter of seconds. Other groups have developed other applications. For example, VolunteerMatch.org, onlinevolunteering.org, and serviceleader.org provide listings of tens of thousands volunteer opportunities throughout the nation.

The potential of third-party portals to integrate a wide array of governmental (and nongovernmental) information is enormous, and has barely been tapped. Take boat registration for example. While it should be a simple task, registering a boat can be quite complicated. The evidence can be found on

boating Web sites, which are filled with queries from boat owners asking how to register their boat.

Depending on the state, the answers vary widely. Some states require an inspection; some require payment of local county tax and state registration fees. In Texas, registrations are handled by the Parks and Wildlife Department, and in Virginia, by the Department of Game and Inland Fisheries. Some boats, depending on their size and use, must be registered with the federal government. The process would be much easier if a national organization of boat owners were a portal for boat registration.

Other areas are ripe for digital integration. Imagine if a third-party provider created a site like Recreation.gov (a federal e-government Web portal) and structured it so that all federal, state and local government, and private recreation facilities were listed on one site. The site could contain a vast array of recreation resources (e.g., bike paths, golf courses, etc.), making it much easier for citizens to find the kind of activities they are looking for. It could provide one online reservation service for most facilities. It could develop an interactive Web site providing citizens with information about each recreation site (including photos, videos, historical documents, printable U.S. Geological Survey topographic maps, etc.), and a place for visitors to post comments, upload their own photos of the park and ask questions. To make this happen, the National Park Service and state recreation departments should enable other organizations to make use of their data, such as park information and location, and provide the ability to link to online permit and reservation systems.

These types of integrated approaches offer several advantages over the more dispersed and agency-centric approaches usually taken by governments. First, they include an assortment of resources, not just those from

one agency or level of government. Earth911.org, for example, includes information not only on local government recycling programs, but also on local civic and other private-sector recycling efforts.

Second, these portals can achieve national scale and critical mass that makes them sustainable over time. For example, Earth911 has formed partnerships with companies and industry trade associations to offset costs of running the portal and help increase awareness of the site. Just about every container of motor oil, billions annually, has or is currently putting the Earth911 logo and or the www.Earth911.org call to action on their products. The promotional value of this if one were to try and pay for it is incalculable. Moreover, they have produced Public Service Announcements (PSAs) on a variety of environmental topics so that local organizations at no cost can access them across the country can promote their local environmental messages. Imagine how difficult it would be for each county to convince a celebrity like Steven Segal to make a PSA on the importance of recycling waste oil.

Third, these organizations, whether for-profit or nonprofit, are often nimble and non-bureaucratic, and can exceed government expectations by avoiding the significant bureaucratic restrictions that slow down online government efforts. And because they are able to consolidate data from all 50 states and are not constantly reinventing the wheel they can create applications for significantly less than what it would cost the public sector to do individually, and at a fraction of the cost when replicated by 50 states, 3100 counties, and even more municipalities.

Online Applications

Non-governmental organizations can play an important role in developing digital tools that simplify often complicated and paper-

intensive interactions with government. In some cases they will need government funding to ensure a sustainable business model. In other cases, they may only need access to government data and a customer marketplace will provide a revenue stream that allows the services to be self-supporting.

Perhaps the most widely used application is tax preparation software created by companies to help citizens cope with the complex federal and state tax codes. Tax prep software provides a valuable model to use in moving forward in using software and the Internet to make complex, previously paper-intensive government processes understandable and streamlined. Software and the Internet could be used to sort out the complexity of dealing with government. Individuals and businesses could enter their location and other relevant information and the software tools would automatically generate all the forms for all the government agencies (including local, state and federal) that apply to them. "Wizard" software could guide individuals through processes by asking them questions and on the basis of those answers help people fill out the required forms. These programs would allow people to automatically file forms to the appropriate government agencies. Such "turbo" tools could radically simplify the process of dealing with government, providing savings to citizens, businesses and government.

Business to Government: From paying taxes to complying with regulations and information requests, local, state and federal governments impose extensive requirements on businesses. In particular, government reporting requirements weigh most heavily on small businesses that have fewer resources to easily comply.

Most of these requirements are ripe for re-engineering and integration by third parties

using software and Web tools. Using turbo-charged e-government services, businesses could determine exactly what local, state and federal regulations they are subject to, and allow the software tools to complete and file all regulatory compliance forms, from Occupational Safety and Health Administration requirements and Department of Labor wage and hour rules, to environmental regulatory compliance and reporting to federal statistical agencies.

For example, software could let importers and exporters automate and integrate their information-reporting requirements, which can extend to as many as 104 different federal agencies or bureaus. Software could guide individuals starting a new business (or a nonprofit organization) through the complex process of filing the required local, state and federal forms, saving them thousands of dollars in attorneys' fees and hundreds of hours. Other governments are working on this. For example, the Canadian government recently created a private foundation to create and administer such a program for Canadian entrepreneurs.

Software could let builders and do-it-yourselfers easily obtain building code information and file permits, and let professionals in the 46 state licensed professions apply for and renew their licenses. In short, widespread use of such software tools has the potential to not only let businesses spend significantly less time and money on complying with governmental rules and requirements, but also in boosting compliance with regulation requirements that would then be easily understood.

Citizen to Government: There are a host of citizen-to-government applications as well. From buying a home to dealing with Medicare to becoming a citizen, citizens are required to engage in relatively complex, confusing, and paper-intensive transactions with governments. Software tools could simplify most of these tasks.

For example, the process of buying and selling a home could be re-engineered using software. Currently homebuyers or sellers must complete myriad paperwork – HUD forms; local tax forms, title insurance, settlement, etc. This is one reason relatively expensive real-estate agents and attorneys play such a large role in the process. However, wizard expert system software could guide individuals through the process and automatically file forms electronically.

These tools could be used in any areas where citizens must navigate complicated bureaucratic processes. For example, a health insurance software tool could let companies and individuals deal with government health-care processes such as Medicare, Veterans Affairs and Medicaid. A citizenship and immigration tool could streamline the process of applying for a green card or becoming a citizen.

Software could radically simplify adopting a child. Adopting a child, especially one from another country, is nothing if not an exercise in countless forms and delays. Because the process is so complicated and time consuming, prospective parents pay relatively large amounts of money to adoption agencies to help guide them through the bureaucratic morass. The result is that adoption is more expensive and time consuming than it need be. Using the same type of software used in tax preparation, the adoption process could be radically simplified for prospective parents. They could enter in their information, including community they live in, and they could complete and electronically file all the relevant local, state, and federal forms. While adoption agencies would still need to be involved in the process, use of an adoption software program would cut thousands of dollars and hundreds of hours from the adoption process.

Another area is in applying for student financial aid for college. Applying for

student aid can be a complex process that overwhelms many students and their families. For the vast majority of these lower income families who do not itemize their deductions and often file 1040EZs, the Free Application for Federal Student Aid [FAFSA] is substantially more complex than the IRS forms related to their income and assets they typically fill out each year. Software systems that channel the relevant information gathered from a family's most recent tax return into the fields of the online FAFSA, or sponsoring an add-on to tax simplification software such as TurboTax, could streamline the student aid process. Such reforms would make the student aid process less intimidating, time-intensive and complex and make the FAFSA and student aid more accessible.

Third parties can also play other complementary roles in helping drive digital government and cut costs for government. For example, some state agencies have begun to outsource mailing functions like car registration renewal mailings to private firms. States pay no costs for the mailing (printing and postage) because the companies recoup their costs by inserting ads in the mailers (the state approves the types of ads it finds acceptable and privacy is protected because advertisers are not given information about individuals). More importantly, the mailings are designed in such a way as to increase more efficient “online”, as opposed to less efficient “in line”, responses. Customer service is improved and DMV operating costs are reduced because the state needs fewer employees in bricks and mortar facilities. As a result of such public-private partnerships, several states have seen significant increases in Internet registrations and decreases in field office visits.

Government-to-Government: “Turbo” software tools can also help local and state governments deal with government-to-government applications. Local and state

governments are often in the same boat citizens are as they struggle to not only get access to information scattered across a host of governments but to comply with a wide variety of complex regulations. As with citizen-to-government and business-to-government applications, privately developed tools can streamline G-to-G interactions.

One critical area where state and local governments need to share information is law enforcement. To effectively fight crime, including terrorism, state and local law enforcement agencies need to be able to access a wide array of information, much of it in public records held by other governments. Yet, until recently, they had few effective tools to do this, in large part because no government agency took the lead in developing such an integrated information system. It was in response to this need for timely information sharing and exchange of terrorism-related and other criminal information that the Seisint Corporation developed the Multistate Anti-Terrorism Information Exchange (MATRIX) program shortly after the terrorist attacks of September 11th. FACTS, or Factual Analysis Criminal Threat Solution, was one of the applications developed. FACTS provided law enforcement a technological, investigative tool allowing query-based searches of billions of available state and public records. Using FACTS, an investigator could conduct a query using incomplete information, such as a portion of a vehicle license number. FACTS would search the system and assemble information matching the partial description. The Matrix program was initially funded by the Department of Homeland Security but DHS discontinued funding largely because of perceived privacy concerns, most of which had been significantly exaggerated by anti-technology privacy advocates. In fact, the program was well on the way toward developing and implementing effective tools

and procedures to protect privacy and civil liberties.

Governments and non-profit organizations could greatly benefit from better access to a whole host of government data, not just related to law enforcement. Yet, it is extremely difficult for state and local policy makers and program managers to access federal data to help them make better decisions in areas like economic development, health care, education, and environment. First, the data is often not in machine-readable format. When it is, it resides in a wide range of federal agencies. Even when it's in the same agency, its not aggregated in any meaningful or easy to use way. Aggregating this data to better understand impacts in communities, regions and states requires extensive work. As a result, communities and other organizations routinely pay consultants large sums of money to do this data aggregation and analysis, in part because they are the only ones who can find their way through the maze of federal data.

It's time for government to fund third party integrators to develop digital tools that let users access this data in one place and easily analyze it. The government has begun to do this one at least one project, a Regional Innovation Benchmarking project funded by NIST and NSF. The project is developing an easy-to-use web-based tool that will let users identify selected innovation indicators (e.g., patents, high-tech jobs, etc) and determine how their region (county, MSA, or state) is performing currently and over time compared to other regions. This kind of tool lets communities and regions get a more accurate and wide ranging view of their local economy's structure and performance. It also lets them better understand the relationship between inputs (e.g., university research) and outputs (e.g. patents) which can better inform economic policy. This kind digital benchmarking tool

could be used in a variety of policy areas such as education, environment, and health care to help regions understand their performance and the steps they need to take to improve it.

Issues to Address

Moving to a new model of e-government that enables third party integrators to play a much more significant role promises to not only dramatically cut the costs of interacting with government, it promises to significantly simplify the process. However, there are at least three important issues that such a model raises.

Cost: While many government applications may be time consuming and maddeningly complicated as least they are usually free. Moving to a third party model could change that. However, even if applications cost money, citizens may willingly pay. For example, millions of citizens pay for tax prep software because the program saves them time and often lead to more accurate returns with higher refunds. In addition, just because third parties provide these services does not mean that they will always cost money. For example, Earth 911 recoups its costs through corporate sponsors. In the cases where it is important that services be free, government could provide grants to third party providers to support the services, as DHS did in the case of the Matrix program. Government can also work with providers to ensure that some of their services are free. For example, the IRS worked with tax preparation companies to establish the free tax file consortium.

Privacy and Security: Because of the 1974 Government Privacy Act and the E-government Act of 2002, citizen information shared with government enjoys considerable protection. In contrast, private organizations

may provide less protection. However, government could require private organizations to comply with strict privacy laws when handling citizen data related to government uses. For example, RS regulation 7216 prohibits companies from sharing tax return information with any other entity other than government and prohibits them from using it to market or sell anything else to a taxpayer, without the taxpayer's affirmative written permission in advance, and the permission must be executed in each such instance. However, it's important to also note that there are unique privacy risks from government itself engaging in e-government activities, including when they attempt to move into e-commerce activities traditionally done by the private sector. For example, recently the United States Postal Service attempted to move into electronic bill payment and presentment. However, because the Postal Service is an investigative arm of the U.S. Government, it could mean that could other federal agencies could gain access to consumer credit card records more easily than if they were held by the private sector. Likewise, data, including tax data, entered on government web forms is sometimes stored electronically and could be audited, even if the citizen changes the data before "submitting" the final form.

Inherently governmental roles: Some may argue that while it's okay for third party providers to help citizens with relatively routine and non-sensitive uses of government information such as the location of pet shelters, that only government should operate some functions. For example, some might argue that a web site for national parks should be run by the government, not private parties. But as long as government establishes proper rules and safeguards, third party players can manage complex and critical systems and in so doing provide citizens with more value and ease of use.

Conclusion

It's time to take advantage of the power of information technology to radically simplify and streamline interactions with government. The challenge is not technology; the tools exist today to make interacting with government relatively easy. The problem is that government agencies

and legislatures have little incentive, and in taking the next steps of creating a truly technology-enabled citizen-centered government. Achieving that vision will require a fundamentally new model where government engages in partnerships with the private sector to help them exploit these next generation tools that are already working effectively.

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