

E-Government: Creating Tools of the Trade

Boiled down to its essence, electronic government promises to make connections. Citizen to government. Government to business. Local to state. State to federal. Agency to agency. The possible connections and their implications are practically limitless.

The work needed to make those connections effective for all will occupy public agencies for the foreseeable future. This work is very important, highly visible, and admittedly difficult. Lots of new ground is being cleared, but the old reliable tools are not enough to do the job. In a recent environmental scan of the e-government landscape, the Center for Technology in Government found both promise and challenge. Those working to achieve the vision of e-government often need to find or invent some new tools and solutions along the way. Here are some of them.

A path through the vast amounts of information being disseminated about e-government to those really useful items that can help e-government projects move forward. There is a tremendous amount of activity out there. Technology companies, professional associations, government reports, technology trade journals, and consulting companies are all weighing in on e-government. It's difficult to cut through it all to identify the material that offers sound analysis and usable advice.

A strategy that closes the distance between the skills needed and the skills available to achieve e-government. The brain drain of highly skilled government IT workers is a concern on many levels. According to *civic.com*, a Council of State Government poll said that 47 of 50 states reported a shortage of IT workers. Experienced people who have worked with an agency's technology systems for the past decade or two are retiring or leaving for better pay in the private sector. Competition between government and private companies for new graduates with new skills and for seasoned professionals with deep experience will continue to be a challenge.

A way to bridge the gap between government expectations and citizen awareness of e-government services. While 84 percent of government officials said the Internet has improved their outreach to citizens, only 29 percent of citizens (and 37 percent of business leaders) are at all familiar with e-government, according to a recent Hart-Teeter poll conducted for the Council for Excellence in Government. While this number will change as more government services and transactions go online, this dichotomy must be reflected in early expectations for e-government.

A strategy for reaching the people who need government services regardless of their access to the Internet. A gap, commonly known as the "digital divide," exists between those households that have access to the Internet and online services and those that don't. Online services don't work when citizens don't have the necessary computers and Internet connections to receive them. And these citizens, who tend to be isolated or poor, may be the ones most in need of government services. That means traditional (or multiple) modes of service delivery may be needed for some time to come.

A transformation from our tradition of program-driven services to e-government's promise of integrated service. Like any new technology project, electronic government is difficult, but it's made even more difficult because it places so much pressure on the entire enterprise. The e-government vision is a vision of integrated information and services. This means radical changes may be needed in what happens behind the Web site that citizens see. New business processes, different information flows, changed policies, advanced security measures, and new data management methods are all part of the integration story. This deeply transformational work is why leadership is so critical, and why a new report from the Kennedy School of Government at Harvard University, "Eight Imperatives for Leaders in a Networked World," says "to be an effective leader in our networked world, you need to engage IT issues. You need to play a key role in establishing strategic direction, implementing specific projects, and formulating new public policies."

A shift from yesterday's static Web to the new dynamic Web. The future of an agency's work now rests in new and evolving technologies that support real-time, dynamic interactions. The Web began in government as an exciting way to present static content to virtually anyone. It required new presentation skills and technologies, such as HTML; the agency's business rules were applied before the content was posted on the Web site. Some e-government applications will still be of this type, but most will move to a dynamic state. In these applications, the business rules must be applied on the fly as information from users interacts with agency databases to produce new services. These applications demand dynamic technologies involving data access, database management, authentication, and security of a very different nature from the old Web. The dynamic Web makes closer connections between an agency's internal systems and the outside world, presenting new risks and demanding new tools and techniques for managing them.

A way to offer services through e-government portals that resolves the issues associated with privacy and data sharing. Service and data integration projects are classic examples of being on the "bleeding edge" of technology. Ask anyone who has worked on one. According to the National Electronic Commerce Coordinating Council, "Sharing data from multiple sources is a challenge that has become more fundamental as portal technology advances." Yet system architects continue to face "the same barriers that have plagued client/server and mainframe application developers." Data integration requires new business processes, increases technical complexity, demands reliable security, and presents serious data privacy, quality, and ownership issues.

A road map from where we are now to where we want to be in the future. According to "Creating Citizen-Centric Digital Government," a new guide from the National Association of State Information Resource Executives (NASIRE), "In the coming years, citizens will use the Internet to build a relationship with government that is personal, custom-built for each user with features that are accessible. Digital government will be easy to use, consistent in its appearance and functionality, offer a complete selection of services that are unified across agencies, and available around the clock. Citizens will be aware of their rights to privacy and able to control governmental use of their personal information." Yet, according to a study conducted by Brown University, "Government

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Web sites are not making full use of available technology, and there are problems in terms of access and democratic outreach.”

The Need for Support

To help realize the promise of the future, NASIRE also reported that chief information officers and IT executives across the country want guidelines and frameworks that address e-government, case studies that illustrate how other agencies and states are developing e-government, model policies, best practices stories, and proven methods for engaging top executives and legislators.