E-government: Creating the 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 Web sites are not making full use of available technology, and there are problems in terms of access and democratic outreach.”

Supporting “Government Without Walls”
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. To help fill those needs, CTG will offer an e-government roundtable on March 22, where we’ll ask you, the people creating e-government services in New York, to tell us what you need to know to succeed.

We will use the results of this roundtable to guide us to projects and investigations that answer the pressing questions of those engaged, or about to be engaged, in e-government work. In addition, we will continue scanning the state, national, and global environment to identify and report best and current e-government practices. In partnership with the New York State Forum for Information Resource Management’s E-commerce Standing Committee, we’ll also take a close look at new technologies that may be around the next bend. Our goal? An array of reliable, timely, and practical tools for the builders of a government without walls.
Dear Friends,

Last June, New York Governor George Pataki proclaimed the creation of a Government Without Walls – “a more accessible, less intrusive government that is available to anyone, at any time, and from any where.” Since then the State Office for Technology (OFT) has been working with e-commerce/e-government coordinators across state government to develop and implement a rolling list of 75 high priority electronic government programs that will place services and transactions on the Internet. Agencies have hundreds of additional ideas for implementing New York’s vision of e-government. And OFT is also working on the leadership, policy, and technical infrastructure that will support them all.

Our mission at the Center for Technology in Government is to help government develop strategies and tools for innovative and effective use of IT. Toward that end, we have been scanning the national and international e-government landscape to identify areas in which we can best contribute to New York’s Government Without Walls initiative. The results, summarized in our lead article, led us to highlight the questions that government managers everywhere are facing as they move from the vision to the design and implementation of e-government services.

Over the next year, we’ll focus our energy on answering pressing questions about how to succeed with e-government. To start this work in the most useful way, we’ll follow our now well-established tradition of asking you, the people doing the work, what you most want and need to know.

On March 22, CTG will host an e-government roundtable to identify those questions. We hope to bring together a range of government professionals – including executive level managers, IT specialists, and public policy professionals. We want to hear from the pioneers who are already offering services online, and from those now planning their first initiatives. What have you learned so far that could benefit others? What do you need to know next? Which topics are most pressing?

The prioritized results of the roundtable will form the framework for our continuing work. We expect to issue frequent reports that address specific issues or questions raised in the e-government roundtable, offer technology awareness sessions that explore the newest technical concepts and applications, and produce case studies of e-government efforts and the lessons they have to teach us all. Overall, our objective will be to produce reliable, timely, and practical tools and guidelines that can help agencies design and build our “government without walls.”

What: “E-government: Creating Tools of the Trade,” a roundtable
Where: The University at Albany Campus Center
When: Thursday, March 22, 2001, 8:30 – 12:30

Who: Our goal is to bring together executive level managers, and IT and public policy professionals from government in New York who are creating and implementing e-government initiatives.

Why: The work needed to create e-government is very important, highly visible, and admittedly difficult. We want to understand the specific challenges you are facing so we can shape our own work over the next 12 months to help you meet them.

How: Presentation of the results of an environmental scan conducted by CTG over the past few months, followed by large and small group discussions. These discussions will lead to an agenda of work at CTG that focuses on your need for answers, resources, and practical tools for e-government design and implementation.

Register online at http://www.ctg.albany.edu/egov/roundtable.html

For more information, check our Web site or e-mail queries to egov@ctg.albany.edu

Sharon S. Dawes
Director
Collaboration Project Receives Best Practices Award

Searching for best practices, those innovative strategies and technologies that are the best examples of how to solve information problems, is an important part of every CTG project. Those best practices provide valuable clues on how to proceed with research, development, and implementation of solutions.

And now a recent partnership at CTG has earned the right to be called a best practice.

The New York State Forum for Information Resource Management (NYSFIRM) presented the New York State Office of the State Comptroller and CTG with a Best Practices Award in Management. NYSFIRM gives these annual awards to individuals or organizations that embody its commitment to an enterprise-wide perspective for information management in New York State. The Best Practices in Management Award recognizes the effective partnership between the Comptroller’s Office and CTG that resulted in a set of recommendations to guide New York’s statewide central accounting system redesign project.

That system is the backbone of New York State’s financial operations, and processes 17.5 million transactions each year. Everything from local government grants to vendor contracts to budget allocations are processed through the system. While it’s a workhorse, the 19-year-old system was designed long before today’s burgeoning accounting and financial management requirements, and relies on older, less flexible technology.

Solid maintenance and enhancement of the system has allowed it to keep pace with change in key areas. However, there is an increasing gap between what the system can do and the accounting and financial management needs of State agencies and other stakeholders.

Leaders in the Comptroller’s Office recognized the enormity of the effort that would be required to address concerns about the system. But they also understood the risk of rushing too quickly to a conclusion or a solution without developing a full understanding of the current situation, potential solutions, and the specific needs of the system’s stakeholders. The Comptroller’s Office decided that the first, and potentially most critical, step in their effort would be to develop a sound understanding of stakeholders’ current and future needs. To guide this critical step, the Comptroller’s Office established a partnership with CTG to conduct a rigorous and objective stakeholder needs analysis.

The Comptroller’s Office and CTG worked together to determine the needs of the agencies and employees who use the system on a daily basis. More than 200 people participated in workshops where they shared their ideas on what the system can do now, and what it should be able to do in the future. That advice resulted in recommendations the Comptroller’s Office will follow as it develops the next generation of the central accounting system.

Work Continues

CTG continues to be involved in the statewide central accounting system project.

The Center is now helping the Comptroller’s Office learn how to conduct thorough business process analyses. This work involves field visits and facilitated group decision conferences with agencies that are affected by a selected business process integral to the redesign of the central accounting system. The two organizations are examining issues of process variability across agencies, legal and regulatory policies, and standards for processes and data.

“The goal is to assist the Comptroller’s Office to increase its proficiency in the types of analysis necessary to move the project forward,” said CTG Project Director Theresa Pardo.
Insider’s Guide Makes a Splash

The Gartner Group predicts that spending on e-government initiatives by all levels of government will grow from $1.5 billion in 2000 to $6.2 billion in 2005. Sure, this prediction represents a huge capital investment of taxpayer dollars. It also calls into play countless projects that must tackle difficult information use challenges.

The Insider’s Guide to Using Information in Government lays out a framework that can help government professionals overcome these challenges. The Web-based resource is fulfilling its mission, based on the feedback CTG has received since it was launched late last year.

“It’s great to know that government managers are finding real value in the site,” said Meghan Cook, CTG project associate and leader of the team that developed the Insider’s Guide.

The Guide covers six topics – strategy, policy, data, cost, skills, and technology – that public sector managers encounter when using information to create programs, evaluate services, and improve delivery. Eight case studies involving New York state agencies provide vivid illustrations of the main topics. And links to outside sources add even more value.

From government managers to the news outlets that cover the public sector, there’s been nothing but praise for the Insider’s Guide.

Government practitioners like the site’s organization and content, and find added value in the case studies and links to outside resources.

“Perhaps the most effective feature of the Insider’s Guide is the intertwining of your philosophy with links to other credible sources, and using the case studies as exclamation points. No matter how many ‘authoritative guides’ you stack up, the true selling point is the real life success stories,” said Greg Smith of the New York State Office of the State Comptroller.

“The content is excellent. The visual presentation is clear and concise and very easy to use. I would recommend the site as a prototype of the way government agencies should set up Web sites that present a lot of information in text format,” said Robert Kelly of the New York State Division of Housing and Community Renewal. Kelly is also chair of NYSFIRM and a member of the CTG Standing Committee.

Media outlets praise the Guide as a valuable resource for government workers.

“Government officials who want to harness their organization’s vast information resources in innovative new ways have a new management road map to help them. The Insider’s Guide to Using Information in Government (is) a Web-based resource that provides a framework for information technology managers to use in planning and evaluating projects,” according to Civic.com.

According to Richard Delaney, an e-government management consultant, in Governing.com. “Getting (information technology managers) started is always the hard part. What’s useful is not necessarily to shape the answers, but to shape the questions. The CTG effort is valuable, he said, because it shows officials that there are common approaches for developing their unique ideas.”

The feedback generated from the launch of the Insider’s Guide also resulted in suggestions about how to improve the site. The Guide team will work to incorporate user suggestions, as well as other insights learned through CTG’s work with government agencies, into new content and links. The goal is to ensure the Insider’s Guide site remains a robust resource.

“Everyone at CTG is proud of the positive reception that the Insider’s Guide has received,” Cook said. “But we’re not going to rest on our laurels. We plan to continually update the Guide so it will keep its status as a valuable resource for government professionals.”

Kids Indicators Project Draws to a Close

The start of the new year marked the end of CTG’s involvement in the Kids Well-being Indicators Clearinghouse.

The goal of the two-year project with the New York State Council on Children and Families was to make up-to-date indicator data on the health and well-being of New York State’s children and families available to a wide audience through the Internet. The two organizations accomplished this goal through the creation of the Kids Well-being Indicators Clearinghouse (KWIC) Web site.

Childhood indicator information – such as statistical rates of infant mortality, teen pregnancy, high school dropouts, and juvenile violent crime arrests – are instrumental in developing programs that help children rise above a variety of hardships. The Council has focused its efforts on the development of the indicators and on making a compilation of the data available in printed form on an annual basis. This compilation of indicator data has become a critical resource for the state.

But the Council discovered challenges in ways to present and deliver the information its 13 member agencies collected. The indicators were published annually in book format. The Council knew it wanted to change the way it shared this information. They saw the Web as an opportunity to expand access to unlimited numbers of potential users, which would allow more people to use the data for decision making and planning. Using the Web would also provide the Council with opportunities for expanding the tools available to users of the data.

“We just felt there had to be a better way to get the data out there and educate people about how to best use data for decision making and developing programs that help children and families,” said Deborah Benson, director of the Council’s Policy Bureau.

That’s where CTG entered the picture. CTG worked closely with the Council and its member agencies on this project to use the Internet to make the most current indicator information quickly and easily available to a wider audience. The site had to be a well-organized, data rich, electronic resource for people who need to know demographic, health, education, and economic information about New York’s children in order to develop policies and programs that address their needs.

The project involved intensive best practices research, design and development, production, evaluation, and testing. The resulting Web site contains a great wealth of data in the areas of economic security, physical and emotional health, education, citizenship, and families and community. Users can use the data as it is presented, or they can get customized information through queries.

“Once it’s launched, the site will be a great resource for anyone in New York State who’s charged with creating policies and programs designed to improve the lives of our children,” said CTG Project Director Theresa Pardo. “It provides thousands of pieces of data that cover dozens of indicators all across the state. Overcoming the constraints of the printed book by providing any time, any place access to the data is the real benefit of the KWIC site.”

CTG has provided the Council with a detailed report about the requirements necessary to launch and maintain the site. The Council is now deciding how to proceed with the public launch of the site.

“For state agencies and local governments, it’s a better way for us to share our data,” Benson said of the site. “And it’ll allow folks outside government greater access to data that we have available.”

This project was funded in part by a grant from the United States Department of Health and Human Services.

For more information about KWIC, visit http://www.ctg.albany.edu/projects/kwic/kwicmn.html.

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...an applied research center devoted to improving government and public services through policy, management, and technology innovations.
resource was demonstrated to researchers and end-users of high performance computing at the Super Computing conference in Dallas, TX.

We presented a lecture on problem definition and analysis tools to the Educational Administration Department at UAlbany.

Our ongoing NSF project on knowledge networking resulted in papers that were presented at two national meetings. “Structuring the Story to Restructure Work and Interorganizational Relations in the Public Sector” was presented at the American Anthropology Association’s annual meeting in San Francisco, CA. “Developing Collaboration Between Nonprofits and Government: A Case Study of Knowledge Sharing to Improve Services for the Homeless” was presented at the Association for Research on Nonprofit Organizations and Voluntary Action’s annual conference in New Orleans, LA.

Korea was the locale for presentations on two CTG projects. A paper about our knowledge networking project, “Effectiveness of Knowledge Sharing in Public Sector Interorganizational Networks,” was presented at the Korean Association of Public Administration’s International Forum on Strategy Development for Knowledge-Empowered Government at Chosun University in Kwangjo. The Korean National Assembly’s Forum on Electronic Government learned about our Building a Digital Government for the 21st Century project.

The European Commission is considering ways that knowledge management can help achieve the mission of the European Union by giving staff better access to expertise and information resources throughout the institution. CTG was among an international group of researchers and practitioners who participated in this effort by presenting lessons from our knowledge networking project during the European Commission Workshop on Knowledge Management in Brussels, Belgium.

December

Students in UAlbany’s Rockefeller College learned about our Homeless Information Management System project. The “Introduction to Data Warehousing” class heard about the realities of integrating data.

We moderated a panel on telecommunications at the Empire State Report Infrastructure Conference in New York City.

January

The Association of Government Auditors Technology Conference in Albany included a CTG-moderated panel on e-government.

Representatives of the New York State Office of the State Comptroller visited our Albany office for a “Making Smart IT Choices” workshop. The lessons learned during the two-day session will be applied as the agency continues to develop and implement the Municipal Affairs Contact Repository Operating System.

Through the CTG Speakers Bureau, Center staff share our innovations and practices with colleagues in the government, academic, and technology communities, as well as the general public. This column highlights some of the connections we’ve made in recent months.

October

Representatives from a variety of New York State agencies learned about “Best and Current Practices Research on the Internet: Finding the Cutting Edge of Technology” at a class we presented through the Professional Development Program of the University at Albany’s Rockefeller College of Public Affairs and Policy.

A group of UAlbany students in the Graduate School of Public Affairs learned about our National Science Foundation project on Knowledge Networking in the Public Sector. We discussed the various components of this $1 million project with the Decision Analysis and Policy Studies group.

We hosted a site visit for representatives of the NSF Digital Government Program. CTG staff discussed current and future research plans for the program that supports projects designed to improve government services through the innovative use of information technologies.

We presented a panel on the future needs for information strategy and management education in the public administration curriculum at the annual conference of the National Association of Schools of Public Affairs and Administration in Richmond, VA.

November

Our Insider’s Guide to Using Information in Government Web

www.ctg.albany.edu

Contact us:
www.ctg.albany.edu/contact.html
You can fill out forms to be added to our paper mail database and receive regular mailings from CTG, or change your contact information in that database. So whether you want to receive our quarterly newsletter, or just need to tell us that you’ve changed jobs, you can do it quickly and easily via our Web site.

CTG Web News:
www.ctg.albany.edu/ctgwebnews.html
This e-mail announcement tells you about additions to our Web site, including new project updates, publications, partners, and program announcements. Web News messages contain brief descriptions of the features that have been added to our Web site. The messages also provide links to our site, so you can see the new items for yourself.
Learn More About the Insider’s Guide

If you’re in government, then you’ve probably heard about the CTG *Insider’s Guide to Using Information in Government*. But your job is hectic and you haven’t had time to cruise through the multi-layered Web site to see what it’s all about.

A quick glance at our latest publication will give you a great overview of the resource’s content and organization without having to fire up your Internet browser. This eight-page summary gives you the highlights of the lessons you’ll learn when you’ve got the time to tour the full *Insider’s Guide* Web site.

The document is probably in your in-box right now. Take a minute to look through it. And pass it around to your colleagues. Learn how the *Insider’s Guide* can help you navigate the challenges of using information in government.

For a copy of the *Insider’s Guide* brochure, call CTG at (518) 442-3892 or e-mail info@ctg.albany.edu. Or access the Web site at http://www.ctg.albany.edu/guides/usinginfo