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Center
for
Technology
in
Government

University at
Albany, SUNY



CTG launches program to support e-government

Helping government develop practical tools that will assist in the innovative and effective use of electronic programs and services is the mission of CTG's "E-Government: Creating Tools of the Trade" research program.

The program will produce practical resources to design and implement e-government. This yearlong program responds to the expressed needs of government managers who are engaged in this work.

They asked for guidelines and frameworks that address e-government planning, design, and implementation. They also want resources that encourage and enable e-government knowledge sharing, executive level briefings, technology awareness sessions, research and best practice reports, and case studies in collaboration.

How this work will benefit the business of government

One of the key promises of e-government is a reinvented government. The vision includes improved access for citizens, increased efficiency, lower costs, and greater effectiveness. While many governments have already implemented electronic service initiatives, the bulk of the work is still to come. "Creating Tools of the Trade" is designed to support that work at all levels of government, by offering practical advice, successful models, and well-grounded guides. Our focus will be centered on the many aspects of "how" to design, build, and evaluate e-government initiatives.

Over the next year, CTG will work with state and local agencies, as well as corporate and academic partners, to produce the following "tools of the trade" for e-government:

- ◆ **An e-government knowledge repository** will be a Web-based resource that provides public officials with an array of practical references and resources for the development, implementation, and evaluation of electronic government. It will also provide an interactive environment in which people can discuss their ideas and concerns about technology, policy, and management issues.
- ◆ **Methods and issues of data sharing** will offer information about the technical and operational questions and challenges associated with data sharing.
- ◆ **Making the transition from the static to the dynamic Web** will present some of the technologies that are changing the way everyone presents data on the Web, from XML to the next generation Internet.
- ◆ **Business process implications of e-government** is a research and best practices report that will discuss the process analysis and process improvement dimensions of e-government service design and operation.
- ◆ **An e-government laboratory for local governments** will work with local governments in the planning, development, and implementation of e-government strategies.

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- ◆ **A guide to building a business case for e-government** will lay a framework for building a case for funding, support, and buy-in for electronic government.
- ◆ **A briefing paper for top executives on the critical role of business process transformation in realizing the promise of electronic government** will present the strategic and economic reasons for “end-to-end” design, so that e-government investments can achieve their goals.
- ◆ **A guide to managing electronic records in e-government** will offer best practice case studies and guidelines about how to design and manage the records associated with e-government applications.
- ◆ **A guide to collecting baseline measures on cost and performance of existing services and a guide to conducting a return on investment analysis for e-government** will cover the essential need to set goals, measure performance, assess costs, and evaluate the benefits of e-government investments.
- ◆ **A case study in collaboration** will analyze a real life example of the benefits, and the challenges, of interorganizational collaboration for e-government.



How the tools were selected

These tools reflect the needs of the people who are creating e-government services in New York. On March 22, close to 100 representatives from 43 organizations (including state agencies, local governments, and non-profit or private sector organizations) met in a roundtable event to discuss key aspects of e-government development in New York State.

Based on recommendations made at the roundtable, CTG conducted an online survey and encouraged government managers to vote for the products they felt were most important or useful to their work. The survey results identified the priority concerns of several groups: state agency managers, local government officials, IT professionals, and program or administrative professionals. This collection of high priority concerns has become our initial working list. Other items may be added in the future.

To find this article and learn more about our e-government project, visit www.ctg.albany.edu/egov

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Writer/Editor:
Stephanie Simon
Contributing writer:
Mark LaVigne
Designer:
Sally Goodall



1535 Western Avenue
Albany, NY 12203
(518) 442-3892 (phone)
(518) 442-3886 (fax)
info@ctg.albany.edu
www.ctg.albany.edu

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center devoted to
improving government
and public services
through policy,
management, and
technology innovations.

State and local officials share e-gov stories

Government agencies at every level are putting more and more information and services on the Internet. But creating and implementing e-government is a difficult task that requires skillful development, artful collaboration, and tremendous resources.

This was the message shared by close to 100 New York state and local government officials in March at a special e-government roundtable hosted by CTG and the New York State Forum for Information Resource Management (NYSFIRM).

The half-day meeting and discussion involved executive level managers and information technology and public policy specialists from dozens of state agencies and local governments in New York. All of these people are currently engaged in, or about to begin, e-government work.

The goal of the roundtable was to elicit the questions and emerging issues of e-government initiatives from the people in the trenches.

“The work needed to create e-government is very important, highly visible, and admittedly difficult,” CTG Director Sharon Dawes told the roundtable participants. “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.”



State and local officials who are enmeshed in e-government projects used the roundtable to discuss the problems, challenges, and issues they're facing. The frank conversations centered on such topics as: data security and access; interagency cooperation; skills, training, retraining, and retention; data standards; electronic records management; and sharing applications and resources among agencies. Participants shared their comments with their colleagues in small group discussions facilitated by staff from CTG and NYSFIRM.

The roundtable elicited thoughtful feedback about e-government issues, which CTG organized into eight themes: needs analysis for citizen, business, and government; alternative service designs; back office transformation; security, authenticity, and citizen trust; collaboration; expertise; e-government service evaluation; and knowledge building and sharing. Participants also suggested dozens of ideas for continuing work, many of which CTG will pursue in the coming year.



Partners reflect on knowledge networking project

It's always exciting when you hit the halfway point. It's much easier to see the end of the road once you've made it halfway. And the milestone helps you reflect on the progress you've made so far, and figure out what you have to do to get to the end.

That was the goal of a recent day-long meeting for participants in CTG's *Knowledge Networking in the Public Sector* project. We gathered 40 people who represent the seven New York state and local agencies whose knowledge networking relationships are being studied in the three-year \$1 million research project. CTG researchers shared preliminary research findings and collected feedback from participants.

"This meeting was a major checkpoint in our overall project," said CTG Research Director Anthony Cresswell. "We told the participants what we've found and what we think about those results. We also gave them an opportunity to respond and tell us where they agreed or disagreed. The participants' comments and insights will help us shape the second half of the research plan."

The project involves studying how seven projects developed knowledge-sharing networks as a way to share information, design policies, create work processes, and use technology to achieve common goals. The project agencies are: the NYS Office of Temporary and Disability Assistance, Bureau of Shelter Services; NYS Council on Children and Families; Office of the NYS Comptroller, Division of Municipal Affairs; Office of the NYS Comptroller, Central Accounting System; New York City Department of Information Technology and Telecommunications; NYS Office of Real Property Services; and the NYS GIS Clearinghouse. The research will produce case studies and articles about knowledge networking and develop a model public agencies can follow when creating their own knowledge networking capacity.

CTG researchers recounted the project's focus and progress for these project agencies.

Knowledge networking involves exchanging and creating knowledge to achieve a collective purpose through interorganizational relationships involving policies, information content, work processes, and technology tools and architecture. We are studying knowledge networking for several reasons:

- ◆ The public demands better government performance, which often requires collaboration.

- ◆ The most intractable public problems (such as welfare reform and environmental protection) demand cooperation and sharing of information.
- ◆ Technology by itself is no longer a barrier to collaboration.
- ◆ But social, political, economic, and organizational factors are still major obstacles.

The research team is using a variety of methods to collect data from the participating agencies. We are conducting surveys, analyzing documents about the legal and political environment, observing agency meetings and work



processes, and collecting feedback through reflection meetings. Data collection is an ongoing effort, as is the synthesis of that information.

The research thus far has enabled us to develop a conceptual model of how public agencies use knowledge networking. Involved agencies must have ample time, solid leadership, dedicated resources, and incentives in order to create successful knowledge networking. All of the following factors influence the process:

- ◆ nature of the problem or objective
- ◆ participants and their prior expectations, such as conflicting perspectives, equality of power, and initial trust
- ◆ technical capacity and infrastructure, including sufficient resources and solutions aligned with business practices
- ◆ legal and policy framework of collaborating agencies
- ◆ outcomes, including work processes and products

More than a year of data collection and synthesis have revealed some early observations about the knowledge networking in our project.

- ◆ The perceived benefits of knowledge networking seem universal, but the perceived barriers are specific to the agencies and their concerns.
- ◆ Leadership and self-interest are vital to the creation and maintenance of knowledge networking

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relationships.

- ◆ Trust matters when it comes to building collaborations.
- ◆ These agencies are not only sharing knowledge—they are creating it.
- ◆ Knowledge is embedded in the way people work.
- ◆ Authority structures are inadequate predictors of the dynamics that will occur between and among organizations when building knowledge networking relationships.

After hearing about the project's progress, the meeting participants broke out into small groups to discuss our preliminary findings. They talked about the accuracy and completeness of the conceptual model. They also looked more closely at certain variables, including the role of leadership and the interplay between trust and knowledge sharing.

"There was a lot of enthusiasm for the preliminary results," Cresswell said. "The project agencies said we are on the right track with our observations and analysis."

CTG will spend the next year-and-a-half continuing our data collection and analysis. A variety of products will come out of this work. CTG researchers have been writing and presenting papers on the main theories and methods of the project. We are writing individual case studies about the formation and function of knowledge networking in all seven projects being studied. A synthesis of the cases will result in a refined model of how knowledge networking relationships are formed and operate. CTG will also produce practical recommendations that will help improve knowledge networking in the public sector. The project is scheduled to end late next year.

To learn more about our knowledge networking project, visit www.ctg.albany.edu/projects/kn/knmenu.html

Center reaches out to international system scientists

CTG is extending its reach into the research community by co-chairing three minitracks at one of the world's foremost conferences on system sciences.

The 35th Hawaiian International Conference on System Sciences (HICSS), held on the Big Island of Hawaii in January 2002, is designed to bring together information system and technology researchers and practitioners. More than 700 people from the United States and 30 other countries are expected to attend the conference to present and share research papers, theoretical and empirical work, and advanced case studies with their colleagues. CTG will participate in this information exchange by co-chairing and facilitating three research minitracks: "Information Technology and Public Administration—E-Policy," "Information Technology and Public Administration—E-Government," and "Modeling Nonlinear Natural and Human Systems."



"The HICSS conference is one of the oldest conferences in the field of system sciences. According to *MIS Quarterly*, it is also one of the two most influential," said Jochen Scholl, CTG project support manager and the driving force behind our participation in HICSS. "CTG is proud that our minitracks will help increase the understanding and promote improved research of these important topics."

The e-policy minitrack reflects on and studies the role that public administration plays in understanding, developing, and providing the framework for today's information society. The e-government minitrack studies the way governments use information and information technology to achieve service and administrative goals. The nonlinear systems modeling minitrack is a forum for the latest ideas and results in the variety of approaches available to model complex systems where causes and effects interplay.

CTG is developing and presenting the conference minitracks with colleagues from the University of Applied Sciences of Berne and the Swiss Federal Institute of Intellectual Property in Switzerland, and the University of Texas at Dallas.

For more information about CTG's minitrack courses at HICSS, visit www.ctg.albany.edu/research/hicss/hicss-35_conference.html

Kudos

CTG celebrates two of our own as they reach career milestones.



David Andersen, one of CTG's founders, has been promoted to the rank of distinguished service professor by the State University of New York trustees.

"This is the highest honor the University system bestows on one of its own," said CTG Director Sharon Dawes.

"It recognizes and celebrates David's never-ending contributions, not the least of which are the early development of the New York State Forum for Information Resource Management and the Center. His influence can be seen in our structure, methods, and philosophy."

Andersen, who joined the University's Department of Public Administration and Policy in 1977, has enjoyed a stellar career. He helped create a number of dynamic and innovative institutions, such as CTG, NYSFIRM, the Certificate for Advanced Study in Planning and Policy Analysis program, the Ph.D. program in information science, and the System Dynamics Society. His past leadership roles include dean of the Graduate School of Public Affairs and director of the Nelson A. Rockefeller Institute of Government. And he's a sought-after consultant and researcher in the areas of public policy and management, intergovernmental relations, information science, and system dynamics.



CTG Project Support Manager Donna Canestraro recently earned a master of science degree in curriculum development and instructional technologies from UAlbany's School of Education.

Canestraro, who joined CTG in January 1999, provides primary management and technology support for a variety of projects. She assists agency partners with problem definition, business analysis, and project scope. In her role as facilitator and mentor, she helps foster interagency collaboration. Her work also focuses on defining technology issues, conducting investigations of relevant technologies, managing best practices research, and evaluating various technology solutions. She is also the primary manager of the prototyping process.

With her new expertise in the areas of curriculum development and instructional technologies, Canestraro will help CTG better understand how people learn within organizations. This heightened ability to study and describe how knowledge is built in organizations will be useful for our own internal work, as well as our work with project partners.



Continuing a proud tradition

The University at Albany is striving to expand its reputation among America's great public universities.

Here at CTG, we're doing our part by continuing our commitment to applied research and the creation of innovative management, policy, and technology tools to help public agencies solve their information challenges and improve the business of government. Our work with state and local governments in New York brings us in contact with so many people who are part of the UAlbany tradition. From the faculty and students who help us conduct research, to the alumni working in public agencies who engage in projects with us, the UAlbany connections help make our work possible.

UAlbany's professors, researchers, administrators, and students are working hard to establish a scholarly place among the top public universities. But it also takes resources. About 22 percent of the University's budget is provided by the state. The rest comes from tuition, research grants, and private support.

One of those sources of private support is the Annual Fund, which is now underway. If you are an alum or you would like to help build the quality and breadth of work we do at Albany, you can do so by making a pledge to the UAlbany Annual Fund. If you wish, you can earmark your gift for CTG.

To make a pledge, visit www.albany.edu/development/afform1.html or call 1-800-577-7869.

THE ANNUAL FUND



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.

February

CTG research themes were the subject of a talk at the Ohio State University Department of Public Administration's distinguished speakers series.

The Council for Excellence in Government E-Government Fellows were our guests for a segment of the annual meeting of the National Partnership for Advanced Computational Infrastructure partners in San Diego. We also participated in the meeting's Digital Government Day, where we presented a report on our *Knowledge Networking in the Public Sector* project.

New York state and local government agency staff participated in a short course on intergovernmental solutions at the University at Albany's Graduate School of Public Affairs. The course was a prototype program designed to support the development of relationships between state and local governments in New York.

March

"Walking the Walk: The Effectiveness of Knowledge Sharing in Public Sector Organizational Networks," a paper based on our *Knowledge Networking in the Public Sector* project, was presented at the annual meeting of the Eastern Sociological Society in Philadelphia.

We participated in the Foundations of Electronic Government in America's Cities multi-disciplinary workshop hosted by the University of Illinois at Chicago. Sponsored by the National



Science Foundation, CTG is part of the workshop's advisory committee.

The New York State Forum for Information Resource Management Executive Committee learned about the *Using Information in Government* project and resulting interactive Web resource, called the "Insider's Guide," during a special presentation at the monthly meeting.

New York State Public Management interns learned about government information strategy and management during a seminar we presented in Albany.

April

A staff member acted in one of the New York State Office for Technology's new training videos designed to teach state employees about the importance of information security.

System dynamics compared with other nonlinear modeling techniques was the subject of a presentation we gave at the Massachusetts Institute of Technology's Sloan School of Business.

May

Students in UAlbany's "Introduction to Data Warehousing" class learned about

the realities of integrating data as experienced in our *Homeless Information Management System* and *Kids Well-being Indicators Clearinghouse* projects.

As part of our e-government work, we moderated a panel discussion of New York state and local agency leaders at an e-government symposium hosted by the New York State Forum for Information Resource Management and the New York State Office for Technology. The panel, which included representatives from the Lottery and SUNY, discussed how to introduce and manage successful e-government initiatives.

The e-government theme continued in Los Angeles where we moderated a panel discussion at the Digital Government Research Conference. The panel involved federal government executives who presented digital government researchers with key reasons for engaging in research in and with government.

We participated in a panel presentation on the economic development issues associated with electronic government initiatives at an international e-government seminar hosted by the Instituto Tecnológico Autónomo de México, a private university in Mexico City. The two-day conference involved e-government experts from North and South America, Europe, and Australia,⁷ as well as representatives from such organizations as the World Bank,

New report helps local governments get on the web

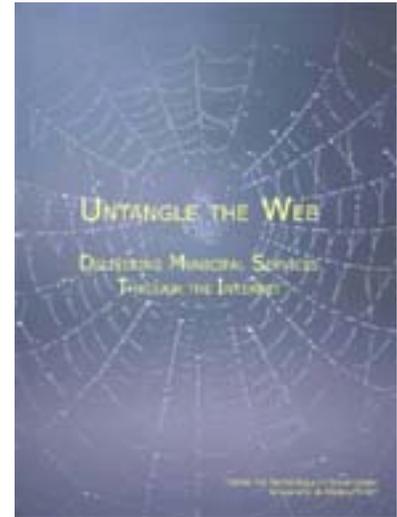
The Internet has changed the way we live and work. And it's also changing the way governments communicate and interact with citizens. While many county and municipal governments already have Web sites, many don't, and even more are in the process of renovating their sites or adding new features.

CTG's newest report, "Untangle the Web: Delivering Municipal Services Through the Internet," is designed to help these public agencies. The 20-page guide helps local and municipal government officials understand the ways of doing business on the Internet.

"*Untangle the Web* provides a set of guidelines that can help local governments, especially small ones, achieve the benefits and opportunities of getting online without being overwhelmed by the challenges of developing, launching, and maintaining Web sites," said Mark LaVigne, CTG project associate and report lead author.

The report draws from the experiences of a group of New York town, city, and county officials who shared insights into how their governments launched and currently manage their Web sites. That group represented: the towns of Bethlehem, Colonie, and Queensbury; the cities of Albany, Oneonta, and Saratoga Springs; and Allegany,

Montgomery, Orleans, Rockland, and Schoharie counties. *Untangle the Web* contains practical advice and Web page samples from the governments represented by these local officials. The report also offers lessons on how to research, plan, launch, and maintain Web sites for local and municipal governments.



To receive a hard copy of the report, call CTG at (518) 442-3892 or e-mail info@ctg.albany.edu. You can also access *Untangle the Web* online at www.ctg.albany.edu/resources/pdfrwp/utw.pdf



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STATE UNIVERSITY OF NEW YORK

Center for Technology in Government
University at Albany, SUNY
1535 Western Avenue
Albany, NY 12203

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