innovations

July 2000

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Center for Technology in Government

University at Albany, SUNY

Investigating New Models of Collaboration Across the Globe

Organizations like to acknowledge firsts. The first big-name partner. The first successful initiative. The first product. The first industry award. The first million dollar grant.

CTG has experienced all these firsts and now has a new one to celebrate: the first international project.

Beginning in North America and later expanding to other parts of the world, field researchers will study how governments, corporations, and nonprofit agencies work together to deliver services to citizens and businesses. Advanced networking and other information technologies are key factors in the success of these new models of public-private partnerships. CTG's project, "Multinational Investigation of New Models of Collaboration for Government Services to Citizens and Businesses," aims to document and explain how such partnerships are created and maintained in different nations around the world.

"The rapid evolution of various technologies has created important new opportunities for governments to redesign services through partnerships with other organizations elsewhere in government, in business, or in the nonprofit sector," said CTG Director Sharon Dawes. "Our project seeks to analyze and document how these new partnerships develop and perform."

Governments must invest in new partnerships and take advantage of emerging technologies if they want to continue to deliver quality services to citizens. But the complexity of these relationships, which are new to many governments, can be daunting. Dawes said governments must deal with questions about the use of advanced networking and other information technologies; the negotiation of roles, rules, and resource sharing; and the effect on the quantity, quality, and accessibility of services. Regardless of their form of government or political objectives, countries all across the globe share these concerns.

The lead research partner in this endeavor is Quebec-based Le Centre Francophone d'Informatisation des Organisations, commonly known as CEFRIO. Established in 1987, CEFRIO is a nonprofit research center dedicated to helping improve the performance of organizations through the appropriation of information and communication technologies. CTG and CEFRIO signed a formal partnership agreement in 1998 which calls for the two centers to exchange expertise and services. This international investigation is the first research project to come out of that partnership.

"(This project) will explore new forms of alliances and the conditions for success required in an environment where public administration is changing," said Monique Charbonneau, president and director general of CEFRIO. "Financial resources remain scarce and potential partners pursue different objectives that are often perceived by both sides as conflicting rather than complementary. At the same time, however, new information and communications technologies offer opportunities to create virtual organizations that combine resources and expertise in the service of citizens."

"The objectives of this research project are therefore to identify the partnership models, the skills, and the technologies that promote improvement of services offered to citizens and businesses, more effective management of government functions, as well as the development and consolidation of expertise in key sectors of economic activity," Charbonneau said.

The National Science Foundation awarded CTG a Digital Government Planning Grant of $30,000 to begin the first stages of the project. CTG and CEFRIO are developing the research framework and methodologies for this comparative study. An international network of field researchers will then prepare case studies of successful public-private partnerships in their countries. An analysis will highlight cross-cultural comparisons, as

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well as identify the critical barriers and enablers encountered with the technologies, processes, and relationships in each case. The two research centers will share the results of the project through scholarly articles for researchers and practical guidelines for government officials.

For more information on CTG's international project, visit **www.ctg.albany.edu/projects/cefrio/cefriomn.html.**

Meet CEFRIO

One of the key components of CTG's first international project is Canadian research partner CEFRIO.

Since its creation in 1987, CEFRIO has engaged in more than 175 projects on the effective use of advanced networking and computing technologies for all sectors of the Quebec economy. CEFRIO's mission is to "contribute to improving the performance of organizations through the appropriation of information and communication technologies." The Centre conducts action research as a means to apply relevant findings, transfer strategic knowledge and expertise, and circulate information to its 110 members in industry, academia, and government.

CEFRIO's projects focus on how information and communication technologies can lead to successful changes within organizations, how information highways impact service delivery, and how results of organizational changes can be measured. The Centre takes different roles depending on the needs of each particular project. CEFRIO may create alliances and encourage partnerships, lead an organization through the project process, or initiate its own research investigations. Some past investigations include: telediagnosis for radiology and pediatric cardiology patients, use of information and communication technologies by Quebec businesses, and critical success factors in reengineering projects.

CEFRIO leverages its work through strong ties with other networks and centers. It's a member of the Telelearning Centers for Excellence Network in British Columbia and the Canadian Technology Network. In addition to its partnership with CTG, CEFRIO has working relationships with three other international centers: Centre de Sociologie des Organisations (CSO) in France, Cellule Interfacultaire Technology Assessment (CITA) in Belgium, and Harvard University's John F. Kennedy School of Government.

For more information about CEFRIO, visit **www.cefrio.qc.ca/**

Web Site Gets Face-lift

At CTG, we try to practice what we preach. So when it came time redesign our Web site, we decided to put our users' needs first.

We'll be revamping the Web site over the next few months. And while you'll notice a number of cosmetic changes, like new colors and graphics, the most significant difference will be the user-centered approach to layout and content presentation. The goal is to make it easier for you to find and access the information you need. Whether you're looking for an update on a particular project, a copy of a specific report, or information on a general topic, our new design will help you find it quicker.

So visit www.ctg.albany.edu and check out the changes we're making. Let us know what you think by e-mailing webmaster@ctg.albany.edu.

innovations
is published quarterly by the Center for Technology in Government, University at Albany, State University of New York.

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Corporate Reps Learn About NYS Government

Phil Kim runs a state agency that plans to develop a statewide geographic information system. He wants it to help everyone from homeowners to marketing analysts to tax commissioners. He needs to work with information technology experts, state officials, and corporate vendors. And through it all, Kim has to follow a complex set of laws and policies that govern all his decisions.

While Phil Kim is a fictional character, the issues he represents are very real. CTG's two-day *Information, Technology, and Government* seminar is designed to help corporate IT experts better understand the complex environment in which government managers, like Kim, operate. The Center's April seminar drew representatives from several corporate partners—Hewlett Packard, Intermedia Communications, Meta Group, Oracle Corporation, and Unified Technologies—as well as new CTG staff.

Government is the nation's number one purchaser and user of information technologies, said Winsome Foderingham-Williams, CTG's education coordinator. She noted that the *Information, Technology, and Government* seminar teaches IT marketers and consultants the complex mix of laws, principles, and practices that govern management and decision making in government agencies.

"Unified Technology's primary customers are state and local governments," said participant Jennifer Drumluk. "It was a great experience for me, being fairly new to this area, to get an overview of government and how we can work together."

CTG Director Sharon Dawes and Project Director Theresa Pardo led participants through a series of lectures, discussions, and group assignments. The lessons focused on the nature of government's business, information stewardship and usefulness, and public vs. private management. Participants were immersed in the public sector work environment as they took on the roles of government managers as part of their group work. Seminar students followed the case of Phil Kim and worked on group assignments that dealt with the roles of government information managers; coalitions, stakeholders, and constituencies; and implementing technology-based innovations.

"The realistic case study allows participants to assume the roles of state agency directors to give them a better understanding of the demands, opportunities, and limitations their government clients face every day," Foderingham-Williams said. "Thinking through a problem from the view of a typical government department director really helps corporate representatives appreciate the kinds of requirements and policies that govern how state agencies operate."

New York State agency representatives—Tom Campbell of the Office for Technology, Ron Cooke of the State Police, Suzanne Nelson of the Office of General Services, and Gail Croteau of the Office of Mental Retardation and Developmental Disabilities—participated in an expert panel about procurement and implementation strategies. In addition, guest speaker Peter Bellinger of the Office for Technology discussed his agency's current initiatives.

CTG routinely offers the *Information, Technology, and Government* seminar for vendors and corporate partners. For more information, visit **www.ctg.albany.edu/education/itg_desc_00.html**

See the box on page 7 for information on the seminar being offered at GTC East in September.

Interactive Justice Integration Guide Available

CTG's reports have always been useful to government practitioners. But with our latest publication, we took things a step further.

We turned our latest report, "And Justice for All: Designing Your Business Case for Integrating Justice Information," into an interactive guide.

This Web-based document contains all the same lessons, tools, and examples as the book version, but presents them in an easily-navigable format that you can follow at your own pace. The guide is designed to help justice officials create business cases to secure political, community, and financial support for information system integration projects at the state and local levels. "And Justice for All" leads officials through the analysis, development, and presentation of business cases for integration efforts. The interactive guide also has full search capabilities and a comprehensive list of common questions.

If you're looking for help on building business cases for justice information system integration projects, access this interactive report for some expert guidance.

The interactive business case guide is available at **www.ctg.albany.edu/resources/htmlrpt/justice_for_all/**

Using Information in Government Program Concludes

Government, like any other business, needs information to survive and thrive. Public managers use a variety of data, facts, records, and statistics to make decisions, draft plans, create programs, and deliver services.

CTG has been exploring government use of information for the past two years. The Center created the *Using Information in Government* (UIG) program to help New York state and local agencies make better use of information to carry out their missions.

The following UIG program goals were pursued in a series of seven projects:

- Recommend policies or policy templates to guide public officials in their use of government information.
- Develop and assess data standards, inventories, and quality assurance tools.
- Develop and assess cost-benefit models and other measures of information value.
- Specify the information use skills necessary for government professionals and recommend ways to acquire them.
- Assess the cost-effectiveness of various technical tools and techniques.
- Develop collaborative and collective resources for data users.

"The UIG projects allowed us to address agencies' own goals while providing CTG with the opportunity to study an array of governmental processes," said CTG Project Director Theresa Pardo. "We studied the effects of complex organizational relationships and information sharing on the management, policy, and technology issues faced by seven New York state and local agencies."

In the first round of UIG, which ran from 1998 to 1999, CTG worked with three New York State agencies: the Office of Temporary and Disability Assistance's Bureau of Shelter Services (BSS), the Office of the State Comptroller's Division of Municipal Affairs (OSC-MA), and the Central New York Psychiatric Center (CNYPC).

BSS needed an integrated information resource to help track and manage the services provided to the state's homeless population. CTG worked with BSS to develop a business case to secure funding and other support for the Homeless Information Management System (HIMS). The prototype for this Web-based integrated data repository that draws information from disparate sources was developed as part of the UIG project.

Bob Dawes, director of BSS, said the project is progressing well. New partners from the state and nonprofit provider communities are joining the project and sharing their data. The team is cleansing data and creating data definitions for demographic and service information. Once that work is complete and the budget funding is finalized, BSS will contract with a vendor to build the system. Dawes expects HIMS to be fully operational next summer. "This system has real value to everybody involved in providing services to homeless people," Dawes said.

The HIMS prototype is evaluated by users.

OSC-MA wanted to create a way for its decentralized offices to share records and customer contact information. CTG helped the agency develop a business case for the Municipal Affairs Contact Repository Operating System (MACROS), which will provide employees with remote and desktop access to vital information about the municipalities they support.

Michelle Hasso, one of the driving forces behind the project, said OSC-MA is currently implementing MACROS. The required hardware and software were installed, and she expects the system to be online in September. "The reaction has been really good," Hasso said. "We've been talking about this for so long, but people really understood it once we showed them what it would do. Seeing is believing."

CNYPC needed a method to facilitate data sharing and decision making throughout the more than 20 units it oversees across the state. CTG worked with the forensic psychiatric center to create a business case to garner support for an Intranet platform database system. CNYPC Information Center Director Bill Brooks said implementation of the system is more than 75 percent complete. Software and hardware were purchased and the Intranet was overhauled. Now CNYPC is modifying some data collection workflow and business processes.

Brooks said the system should be fully operational by September. “We have employees at about 25 correctional facilities throughout the state. This system allows us to share information more easily and efficiently,” he said.

In the second round of UIG, which started last summer and ended in June, CTG worked with four agencies: the Office of the State Comptroller (OSC), the Office of Real Property Services (ORPS), the Department of Transportation (DOT), and the New York City Department of Information Technology and Telecommunications (DOITT).

OSC is in the early stages of an effort to enhance the central accounting system, an 18-year-old mainframe legacy system that’s the backbone of New York’s financial and budgetary operations. CTG worked with OSC on an important first step of this initiative. The two groups conducted a stakeholder analysis to determine the needs of agencies that use the system. A series of workshops were conducted to understand how people use the system now and the features they’d like to see in future versions.

The findings from the workshops are being considered as OSC moves forward in its effort to ensure that decisions about the future of the central accounting system are made with the fullest understanding of stakeholder needs. “This initial step lays the important foundation for what may be the eventual central accounting system redesign and will be instrumental in defining business needs and strategic objectives, researching best practices, consulting on potential designs, and evaluating technological alternatives,” said Ruth Walters, assistant deputy comptroller.

ORPS is working to ensure fairness and equity in the real property tax system by providing increased state aid to municipalities that conduct annual property reassessments. CTG aided this effort by conducting a series of workshops with local assessors and county directors to determine the resources they need in order to successfully implement annual reassessments in their communities.

Central accounting system users discuss their needs at a stakeholder workshop.

The resource suggestions from the assessor community are being incorporated into the project. “Our challenge, of course, will be to reflect as many of these suggestions as possible in our workplans,” said Thomas Griffen, ORPS executive director.

DOT is developing an information technology investment process that links strategic planning, investment, line management, and budget processes. CTG taught “Making Smart IT Choices” methodology and business case guidelines to agency representatives. These tools are helping them refine the project’s vision and objectives.

DOT is using the skills learned from CTG as they continue to develop the new IT investment process. “The result of this process is the development of a portfolio of IT project investments that maximizes the mission performance. Every time we go through the IT investment process, we’re trying to insert the CTG ideas into the front end of the projects,” said Dom Gerias, IT planning coordinator for DOT.

DOITT is creating a new information management model that supports sound IT investments as called for in the city’s IT strategic plan. CTG assisted in this effort by conducting a series of facilitated workshops designed to elicit the barriers and enablers city operating agencies encounter when using current processes. DOITT developed work groups to focus on priority issues, such as staffing and procurement, that were raised during the workshops.

The work produced by these groups will be incorporated into the new information management model.

The final product from UIG will be a Web-based resource kit designed to help government managers identify and solve their agencies’ information problems. From privacy and confidentiality issues to data policies and standards, the kit will provide a variety of resources to help tackle these topics. The resource kit, which will be accessible from CTG’s Web site, is scheduled to launch this fall.

For more information about the Using Information in Government program, visit **www.ctg.albany.edu/projects/usinginfo/usinginfomn.html**

Knowledge Network Project Gets Underway

Share your toys. Work together. Cooperate with your friends. All kids learn these simple lessons. But these practices are also playing a large role in how governments improve operations and services.

More and more these days, different government agencies must learn new ways to work together to share information, develop policies, create work processes, and use technology tools to achieve common goals. The resulting knowledge networks are the key to the future of transformed public services.

CTG is studying these networks in the *Knowledge Networking in the Public Sector* project, funded by a $1 million grant from the National Science Foundation's Knowledge and Distributed Intelligence program. Work started early this year and will continue through 2002. The goals are to: study the formation and operation of knowledge sharing networks in the public sector; create seven comparative case studies of knowledge networks; complete a longitudinal study of the organizational, technological, and political factors that shape knowledge networks; and produce a knowledge network model and recommendations for improved knowledge networking in government.

Knowledge networks are emerging as productive methods for improving government operations and services. CTG chose to examine this issue in response to these trends:

- There has been an increased public demand for dramatic change in government performance.
- The most intractable problems, such as welfare reform, demand cooperation and information sharing among different organizations.
- The newest ideas about public services, including e-commerce, also require cooperation and sharing.
- Technology is now less of a barrier to improved government, but social, political, economic, and organizational factors remain critically important.

Researchers are using the NYS GIS Clearinghouse, which evolved from a 1995 CTG project with the NYS Department of Environmental Conservation, as a benchmark example of a successful knowledge sharing network. Using this benchmark, the team is investigating six other projects involving the NYS Office of Temporary and Disability Assistance, Bureau of Shelter Services; NYS Council on Children and Families; Office of the NYS Comptroller and its Division of Municipal Affairs; New York City Department of Information Technology and Telecommunications; and NYS Office of Real Property Services.

Investigators developed a preliminary model and identified characteristics of successful knowledge networks. Results from a series of surveys, interviews, and observations will be analyzed and turned into descriptive case studies for each project under investigation. The cases will then be analyzed individually, as well as collectively, to identify patterns. Based on the case study analysis, a refined model of knowledge network formation and operation will be developed. In addition, practical advice for government practitioners creating their own knowledge networks will be produced.

"There's no absolute measure of a successful knowledge network," said CTG Director Sharon Dawes. "The GIS Clearinghouse seems to have many of the characteristics that the literature suggests are important success factors. But we're testing this theory as we go along."

The research team is in the midst of the data collection effort. For each of the knowledge networks in the study, investigators are collecting information about: the nature of the problem or objective, participants and their prior experiences, technical capacity and infrastructure, legal and policy framework, organizational structure and management philosophy, knowledge network formation and operation, and outcomes. This effort involves surveys, in-person interviews, observations, and reflection meetings with project participants. These activities generate mountains of qualitative information that must be recorded, coded, and analyzed. Hundreds, if not thousands, of documents, notes, e-mails, phone calls, conversations, meetings, and observations are being analyzed to help understand how knowledge networks are formed and operated.

"A key element is to get the very best data we can from every project," Dawes said. "We want to make sure we capture all the really meaningful and insightful observations that people working on the projects can make."

The data collection and analysis, which constitute the bulk of the work, will continue for the next two years. *Innovations* will regularly provide project updates.

To learn more about CTG's public sector knowledge network project, visit
www.ctg.albany.edu/projects/kn/knmenu.html

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.

April

Participants in the **American Society for Public Administration**'s (ASPA) annual meeting in San Diego heard our presentation on "Practicing Public Administration in the Hollow State."

We discussed best practices in state-local information systems at the **ASPA Institute** meeting in Albany.

Our work on designing the digital government of the 21st century was the subject of a presentation at the **LINKS 2000 Conference** at Virginia Commonwealth University in Richmond. The conference strives to strengthen the links between state government and public universities by bringing together academics, policy specialists, elected officials, and students.

A group of corporate partners and new CTG staff learned about New York State government during the two-day **Information, Technology, and Government** seminar held at CTG in Albany.

We hosted a group of **Korean information technology executives** who are interested in the CTG model. Our staff shared information about CTG's creation, operating policies, research agenda, and innovations projects.

May

We participated in the **NASIRE** (National Association of State Information Resource Executives) mid-year conference in Asheville, NC.

A CTG staff member participated in a review of grant proposals submitted to the **NYS Archives and Records Administration** for the NYS Local Government Records Management Improvement Fund.

We presented the "And Justice for All: Designing Your Business Case for Integrating Justice Information" guidebook to participants of the **US Department of Justice Center for Integrated Justice Information** meeting in Tampa, FL.

Researchers, government officials, and industry representatives gathered in Los Angeles for the first workshop of the **National Science Foundation's Digital Government Program**. As a grantee of the program, CTG joined in the discussions about the social and economic impacts of digital government.

June

CTG staff headed to Montreal, Canada, for our annual research exchange with research partner **CEFRIO**. Each center shared information about recent work. CEFRIO discussed projects on e-commerce, IT procurement in public administration, and telework. CTG presented the *Using Information in Government* and *Knowledge Networking in the Public Sector* projects.

We moderated a panel discussion of state agencies that use e-commerce applications during **E-commerce Day**, an event sponsored by the NYS Forum for Information Resource Management and the NYS Office for Technology.

Information, Technology, and Government Seminar Offered at GTC East

If you missed this spring's *Information, Technology, and Government* seminar, you've got another chance to learn how to work with state and local government.

CTG will present the two-day seminar at the Government Technology East Conference on Sept. 11-12 in Albany, NY.

The seminar immerses corporate representatives in the unique decision making environment of their government customers. It's designed to enlighten private sector managers about the laws, processes, and requirements that guide decisions made by government officials. Vendors who understand the issues facing government managers are then better equipped to work successfully with these clients.

CTG has been conducting *Information, Technology, and Government* since 1995. Participants consistently give the seminar high marks and say they would recommend it to others in their companies. One recent seminar graduate said the lessons helped improve his "ability to understand and appreciate the complexity of New York State government and the business environment in which vendors have to operate."

To learn more about how you can attend *Information, Technology, and Government* at the Government Technology East Conference in September, call CTG Education Coordinator Winsome Foderingham-Williams at (518) 442-3983 or visit **www.ctg.albany.edu/education/edumn.html**

New Partner Assists Data Warehouse Project

When it came time to examine data sets for the Homeless Information Management System (HIMS) prototype data repository project, CTG turned to Ardent Software.

CTG's newest corporate partner specializes in data integration infrastructure software for data warehouses. Ardent's Software Manager program helped the HIMS team examine multiple data sets from various sources. In addition, members of the project team used the software to help them learn more about data cleansing.

"I think the fact that the software comes with training is worthwhile," said Pam Neely, a CTG graduate assistant who used the Ardent software. "It encourages people to take a closer look at their data in a methodical way."

The Massachusetts-based company develops and markets a variety of data integration infrastructure software for data warehouses, analytical applications, enterprise portals, and e-business. In addition, the company produces embedded databases and tools for developing and deploying packaged applications.

In March, Ardent was acquired by Informix Corporation. The California-based company specializes in advanced information management technologies for e-business. The newly-merged companies claim their alliance creates the "largest single provider of critical software infrastructure for the Internet economy."

To learn more about Ardent Software, visit **www.ardentsoftware.com**

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