

# INNOVATIONS

**The Center for Technology in Government**  
1995 Innovations in American Government Award Winner

## New Tools for the Mind ... New Tools for Government

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"Government has everything to do  
with information."  
Sharon Dawes, CTG Director

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The video stream with full motion, sound, and clips from favorite movies set the tone when the Center for Technology in Government (CTG) presented results of its Universal Interface Project. The network video was the first of many graphic demonstrations of the tools available to present information and ideas on the Internet. Sharon Dawes, CTG Director, said that government can apply the same tools used by Steven Spielberg and George Lucas to its work with the public. These are tools for the mind, Dawes reminded the audience, that allow us to seek, visualize, learn, and understand. She invited those assembled to "come into the lab" and see the results of the research that the project partners had undertaken to determine if the World Wide Web could be a

universal platform for conducting government business. The 'lab' in this case was the University at Albany's Ballroom and Assembly Hall transformed into expositions of live Internet action and the techno-wizardry used throughout the project.

Ann DiCaterino, CTG's Manager of Project Support, presented the costs inherent in a Web site undertaking. Although they are considerable, ranging from \$20,000 to \$3 million, Ann pointed out that they are often offset by the payback of improved customer service and savings in personnel, printing, mailing, and phone support.

Virtual Realities  
The demonstration covered a range of

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applications from Web-to-legacy software to an information exchange program that matches job seekers with available jobs. CTG's Kai Larsen showed how Silicon Graphics' VRML software can provide a virtual reality experience to someone who wants to see (and feel!) what Yellowstone National Park is like without actually being there. IBM is creating a library with VRML, Kai said. VISA is designing a virtual banking system, and a program called Starbright is linking seriously ill children all over the world through VRML so that they can talk with and see each other.

#### Meeting and Learning

All information managers must devote time to meetings, but meetings using Internet technology can allow participants to talk to each other, share applications (spreadsheets, white boards, etc.), and work in groups while remaining in different locations. Kai, Eliot Rich and John Rohrbaugh from the University at Albany showed how NetMeeting can be used for same time meetings and Decision Web for any time any place meetings.

Bill Graziadei, a professor at SUNY Plattsburgh, said that "The Web is not the future, but a dynamic part of today." He showed how students can learn and take a more active role by interacting with each other and their

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"Universal Interface -- an interface that provides access to a comprehensive set of tasks in a consistent human-compatible way, independent of platform."

Joe Sasiadek,  
Office of Educational Technology,  
SUNY System Administration

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instructor through the World Wide Web. He was quick to point out that in every work environment today, professionals continually need to upgrade skills and learn. Any government agency could benefit from the learning methods Dr. Graziadei is employing.

#### Integrating Existing Systems with the Web

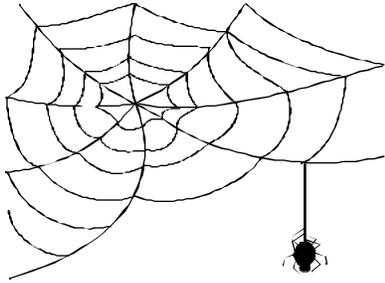
Jim Brennan of NYSERNet and CTG's Peter Bloniarz explained how existing systems can be integrated with the Web to benefit the public. Jim demonstrated America's Job Bank, an information exchange system supported by the NYS Department of Labor and the federal government, that makes available jobs accessible to job seekers via a Web browser. Thirty-five states participate in the program which receives about 400,000 hits per day.

Representing Deloitte & Touche Consulting/DRT Systems, Ron Schrimp demonstrated a Web-to-legacy system prototype that was developed as part of the universal interface project. He showed how a purchasing and reconciliation program could operate using a secure Web site. Called AART, an "any time any where real-time transaction," corporate credit card purchases can be recorded and

reconciled by multiple users communicating with a legacy system via Web technology. Using Microsoft's Front Page, the Deloitte & Touche team worked with SUNY administrators to improve the AMEX credit card procurement process.

Activity and energy were high in the Assembly Hall during the morning break and after the formal program. Twelve exhibitors explained projects and demonstrated World Wide Web technology applications. Audio streaming, Java, 'Cookies,' 'Agents,' Web calendars, electronic documents, and video streaming were demonstrated. Government partners participating in the exhibits included the NYS Division of Housing and Community Renewal, the NYS Office of Real Property Services, and the NYS Forum for IRM. Corporate partners included Silicon Graphics, NYSERNet, Microsoft, and Deloitte & Touche Consulting/DRT Systems. Academic partners exhibiting included Empire State College and SUNY Plattsburgh.

## Web Sitings



### New Tools for the Mind (from page 1)

For more information related to the topics discussed at CTG's Universal Interface Demo Day, please see the following web sites:

NetMeeting	<a href="http://www.microsoft.com/netmeeting/">http://www.microsoft.com/netmeeting/</a>
Excite	<a href="http://live.excite.com/">http://live.excite.com/</a>
America's Job Bank	<a href="http://www.ajb.dni.us/">www.ajb.dni.us/</a>
Deloitte & Touche	<a href="http://www.dttus.com/drt">www.dttus.com/drt</a>
The Web in the Classroom	<a href="http://137.142.42.95/WEST/WebInClass/CMS&amp;ETI.html">137.142.42.95/WEST/WebInClass/CMS&amp;ETI.html</a>
Silicon Graphics (VRML)	<a href="http://www.sgi.com/">www.sgi.com/</a>

### Thinking Outside the Box (from page 4)

The Innovations in American Government Web site is located at  
<http://ksgwww.harvard.edu/~innovat/>

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## People at CTG

Darryl Green is CTG's new Project Support Manager. Born in Utica, he is a native New Yorker. Darryl graduated from SUNY Potsdam with two majors — Computer Science and Philosophy, and he is now close to completing an M.A. in Organizational Communication at the University at Albany. Darryl has been a computer programmer for Massachusetts Mutual Insurance as well as project manager for PC applications at the NYS Division of Housing and Community Renewal. While at DHCR Darryl worked with CTG staff on the Internet Testbed Project. He is currently the Project Support manager for the Electronic Records project.

### Graduate Students

Mei-Huei Tang was born and raised in Teipei, Taiwan, and received her undergraduate degree from National Chenchi University. Mei-Huei earned her M.S. in Computer Science in August from the University at Albany, and she is now a Computer Science doctoral student. At CTG she has been working on the Universal Interface Project and developing a search engine for CTG's World Wide Web site.

Wen-Li Wang is from Taiwan also and graduated from Chenchi University with a degree in Management Information Systems. Wen-Li received his Masters in Computer Science from the University of Albany in August, and is now enrolled in the Computer Science doctoral program. At CTG, Wen-Li has created an audio/video version of CTG's Security on the Internet seminar on our Web site and worked on the Universal Interface Project.

David Filbert is a doctoral student in the Political Science Department. His research interests are in the regulation of developing information technologies, and in his dissertation he will examine regulation of the Internet, focusing on First Amendment issues. David earned a Masters Degree in Government from Lehigh University, a Paralegal degree from Widener University and a Bachelors degree in Political Science from Lebanon Valley College. At CTG, David works on our Operations team, handling our library and contact database.

## Thinking Outside the Box

by Aaron Yeater

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“Public sector innovation means creating and implementing ideas that help public servants serve.”

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Too often we regard innovation the way the Supreme Court regards pornography—we can’t say what it is, but we know it when we see it. The Innovations in American Government program and other valuable efforts to recognize innovation are predicated on this idea—that we can identify and celebrate examples of good government or management, and that in doing so, the meaning of the word will become clear.

We celebrate innovation in much the same way we celebrate invention; by identifying its creator or creators and celebrating them. This is not an unreasonable approach. By knowing the inventor of the light bulb or the telephone as historical figures, we humanize the technology that was invented. By making heroes of those inventors, we can trust their inventions as well. (Perhaps this is why we consider computers so dehumanizing—the inventors of this most important machine have disappeared, and the machine is left, cold and alone. Because we don’t know who invented it, we can’t trust the computer—and if 2001: A Space Odyssey is to be believed, the computer can’t trust us, either.) Great inventors are often considered as important to history as great explorers or leaders, and the greatness of their inventions are augmented by the tale of struggle, virtue, and personal strength that often accompanies the inventor’s life story.

Innovation is recognized in much the same fashion. We recognize an organizational leader or leaders for ‘thinking outside the box’, for rousing employees or public servants from their easy sleep and

transforming them into virtuous public servants. The Innovator, usually an elected official or powerful executive, bears a certain resemblance to Rousseau’s Great Legislator — charismatic enough to bend atrophied bureaucracies to their will, kind enough to use that charisma to further the best interests of his or her constituents. As is true of inventors, the innovator is a person we trust. When a successful Mayor says that a city service will be better delivered, we trust that person, and our confidence in government increases, even if we never utilize that service ourselves, or never noticed it wasn’t well-delivered in the first place. Our Innovator’s ability to ‘sell’ the innovation is part of what determines its success. And celebrating innovation is part of celebrating the innovator; the catalyst who ‘causes’ an innovation.

### INNOVATIONS IN AMERICAN GOVERNMENT

*An Awards Program of the Ford Foundation  
administered by the John F. Kennedy School  
of Government at Harvard University*



But Innovation isn’t just salesmanship, is it? Certainly presentation plays a more important role in innovation than it does in the invention of technology — no matter how much I don’t trust my PC, I won’t toss it out for a typewriter — but is innovation just ‘Spin’? It is easy for the cynical to be suspicious of efforts to encourage innovation. Those who doubt that government can or should deliver services at all, resist innovation as little more than customer-friendly central planning, subject to the same intrusive and inefficient qualities as ‘government-as-usual.’

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In order to avoid this pitfall, we must free our definition of innovation from concepts of technological invention. An invention is a tool which serves a variety of human needs, without concern for the value or virtue of those needs. It is useful. It makes life easier. But I'm not sure it makes life better. It doesn't strengthen our communities or encourage us to trust one another. And, while I may be going out on a limb here, I am willing to say that to be an innovation, a new idea in the public sector must do these things.

Innovation in the public sector requires more than just a powerful, charismatic leader. It often requires hundreds, and sometimes thousands, of public employees to take their role as public servants seriously. An employee can put an end to the most brilliantly innovative idea by not implementing it, or by implementing it unthinkingly. I'm certain that many a public employee has kept a good idea from becoming an innovation, simply by ignoring his own common sense impressions of how that idea might work.

An innovation requires a commitment on the part of every employee to make service at the center of what they do. If a police officer believes her job is to drive around and arrest criminals, that is what she'll do. She'll never meet a person who lives in the neighborhood she protects. She'll never help a kid who looks lost and scared. The residents will never believe that she'll help them, never trust her word, and they won't help her protect their neighborhood. She'll just do her job. She'll drive around and arrest criminals. She'll even be good at doing her job. But she won't be good at protecting the neighborhood. And the neighborhood won't be much safer.

But if she chooses to see her role as that of a public servant, she can change all that. She will know the residents, and be better able to help them protect themselves. She will serve their interests, and they will begin to trust their government. She won't need fancy programs with big budgets and catchy names and slogans and complicated organizational structures to do her job right.

She will serve the residents, the neighborhood will be safer, and she will make life better.

That's innovation at its core. Public sector innovation means creating and implementing ideas that help public servants serve. It means relying on common sense, and trusting the judgment of front-line employees. Innovation requires a willingness to embrace the new, but not for its own sake.

Public sector innovation demonstrates to us that government was created not to serve its own interests, but to serve the interests of the people. Innovation reminds us that for our social contract to be successful, each of us must commit to serve our communities, and not simply expect entitlements to accumulate. It is an example of the strength of our society, proof that we are strong enough to change, and smart enough to remember why we live in a community in the first place. Our community is made stronger by innovation. Life is, in some sense, made better.

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## What They Say.....about Innovation

We asked some of our most articulate colleagues, authors, and public servants to give us their ideas on innovation. Here's what they had to say -- Innovation is . . .

"Change through creative problem solving." Karen Hitchcock, President, University at Albany

"Innovation is mindful change that solves more problems than it creates, that fundamentally improves a condition of life, and that helps make the world more manageable." Camaron J. Thomas, Director, Governor's Task Force on Information Resource Management

"...a solution or course of action that lies outside of the realm of known actions or responses." Darryl Green, CTG

"...the generation, acceptance, and implementation of new ideas, processes, products or services" Rosabeth Moss Kantor *The Change Masters* (1983)

"Being on the cutting edge of innovation is what counts." Edward E. McCracken, President and CEO of Silicon Graphics

"Can't is a 4-letter word. Innovation is the courage to try a new approach to find a new solution, to ask a new question — instead of thinking — We've never done it that way before!" Colleen Ryan, Capital Region Information Service of NY

## Two New Practical Guides from CTG

***Developing & Delivering Government Services on the World Wide Web: Recommended Practices for New York State***

**&**

***Making Smart IT Choices***



CTG has published two handbooks that can help government agencies work effectively in the information age. These are down-to-earth guides written in clear language for managers and information workers. Both publications give advice based on concrete experience with public sector organizations. They are meant for action-oriented people who want to see technology used to improve government service.

Companies are employing the Internet to inform and communicate with the world about products and services, and governments too are discovering the advantages of being available at the customer's convenience. Using the Internet's World Wide Web as a new service channel, however, takes thoughtful planning and careful management. *Developing & Delivering Government Services on the World Wide Web: Recommended Practices for New York State* is designed to help the team responsible for developing and managing an agency's World Wide Web site.

The emphasis is on quality and service in a public sector setting. This handbook covers critical issues such as staffing, policies,

technology tools, page design, as well as cost and performance measures. Worksheets, checklists, analysis tools, and recommendations are all included. The book was created as a result of an Internet Testbed project at CTG involving six New York State agencies and one county government in the development of World Wide Web site prototypes.

*Making Smart IT Choices* is another useful guide for any information manager or government team leader. It summarizes the methods and models for the investigation, evaluation, selection, and testing of new technology systems. Exercises, assessment tools, and case studies clarify the ideas and show how the products can be applied.

Working through the selection of a new technology investment can be a complex and confusing process. This book leads the reader through the analysis of an information problem or need, identifying and evaluating possible technology-based solutions, and ultimately, selecting the information technology that will respond to the need in the most cost-effective and satisfactory way.

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## How to get CTG publications

All CTG publications are available in print and electronic form. Electronic copies may be downloaded freely from the CTG Web site. To view or print these documents, you first need to download the Adobe Acrobat Reader software (also available from our Web site). Bound, printed copies of CTG publications are distributed widely throughout New York State and the US. They may be photocopied freely as long as the title page is included. After the initial distribution, we charge a modest fee for bound copies of a few very popular publications to help support the

costs of keeping a supply in stock. All others continue to be available without charge.

### Handbooks

Our newest publications, which are handbooks rather than reports, are found by going to the CTG home page, clicking on "Resources" and then on "CTG Toolbox." This is the place to find *Developing and Delivering Government Services on the World Wide Web* and *Making Smart IT Choices*. Download electronic copies freely or order bound copies of these publications for \$10 each.

### Project Reports

All project reports can be found by going to the CTG home page at [www.ctg.albany.edu](http://www.ctg.albany.edu) and clicking on the "Resources" button and then on "Reports and Working Papers." As an alternative, go to the home page, click on the "Projects" button and then on the project you are interested in. Bound copies are available without charge.

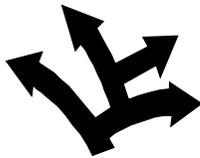
### Coming Soon

Two new publications, the Internet Services Testbed final report and the results of Universal Interface Project will be coming soon the CTG Web site. Watch "What's New" on the CTG home page for announcements.

## Making Connections

September 1996

Kristine Kelly, Tony Cresswell, and David Andersen presented "Making Smart IT Choices" as a preconference tutorial at the Government Technology Conference held at the Empire State Plaza. The text for the seminar, *Making Smart IT Choices*, is now available as a CTG publication. Theresa Pardo and Peter Bloniarz presented "NYS on the Internet: A Report on Two Testbed Projects" at the meeting. Sharon Dawes, CTG Director, moderated a panel discussion about management and policy issues related to the Internet.



October 1996

Research Director Peter Bloniarz and Project Manager Theresa Pardo presented "Developing Web-Based Services in the Public Sector" to the national meeting of the Institute of Internal Auditors held in Albany.

David Connelly presented results of the Internet Services Testbed to the Management NYSFIRM's Management Special Interest Group.

Theresa Pardo spoke at the National Association of Information Resource Executives annual meeting in Portland, Maine as part of a panel presentation "Using Geographic Information Systems to Develop the Economy."

November 1996

Kai Larsen gave a presentation on Electronic Commerce to the Albany Computer Business Association.

Kristine Kelly, the Center's Research Associate, traveled to Malaysia where she was working as a consultant with the Harvard Institute for International Development. Kristine conducted a project planning workshop with six individuals from the Malaysian Ministry of Education. The workshop focused on basic project management concepts and the use of the software package MS Project in project planning and control. It also included the development of a project plan for a pilot test of an information system currently under development at the Ministry as part of a larger Education Management Information System.

Sharon Dawes gave a current practices presentation about CTG at the Investment Strategies for IT in Government workshop sponsored by the Strategic Computing Program at Harvard University.

David Connelly presented a paper "Is There an Optimal Size and Role for Government?" at the Association of

Public Policy Analysis and Management's annual meeting in Pittsburgh.

Local Government Connection. Thanks to the efforts of Stan Schwartz at the State Archives and Records Administration, several state government and university representatives have formed an informal alliance to investigate ways to help local governments use information technology more effectively. CTG, the Local Government Program at Cornell University, the Urban Planning Department at the University at Buffalo, the NYS Forum for IRM and the Governor's Task Force on IRM are all involved in the effort.

National Partners.

CTG is part of a major proposal to the National Science Foundation to create and sustain a National Computational Science Alliance. The program has been organized by the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign and involves more than sixty partners nationwide. If the project is funded, CTG will lead the Government Education and Outreach Team in a five-year effort to link the Alliance to the needs of government for high end computing and networking technologies and applications. CTG Director Sharon Dawes participated in the NSF site review at Rice University in Houston in late October.

## Bloniarz Works With UN in Eastern Europe



Research Director Peter Bloniarz recently travelled to Eastern Europe with the United Nations to assist in developing plans for strengthening the economic forecasting capabilities of the Newly Independent States of the former USSR. His recent missions were to Belarus and the Ukraine, where economic instability and hyperinflation have hindered the government's efforts to establish sound economic ties with other

countries, especially the West. On this trip, he assisted the Ministry of Economy in each country in their efforts to include more quantitative macroeconomic methods and econometric modeling in producing official government forecasts. These forecasts, currently developed largely on expert judgement, are an important barometer that influences economic relationships with private industry and Western trading partners.

## New Corporate Partner

CTG is proud to announce that NYSERNet has recently joined the ranks of our growing list of Corporate Partners. NYSERNet contributed consulting services to our Internet Technologies Testbed project. Visit the NYSERNet, Inc. Web site at <http://www.nysernet.org> -

NYSERNet is a non profit corporation "dedicated to advancing the public good by supporting ubiquitous and affordable network services; by providing access to information, computational resources, and collaborative tools; and by being early adopters of leading-edge networking-related technologies."

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## CTG on the Move

The Center is packing up and moving to a new location. As this newsletter goes to print we are preparing to relocate our lab and offices to 1535 Western Avenue, Albany, NY 12203. The facility will allow all staff to work in one location, rather than split between the two sites across the campus from each other. Our phone & fax numbers, and e-mail addresses will all remain the same.

In addition to office and Lab space, the new site will also include a seminar room and conference room.

We are currently scheduled to move shortly after February 1, 1997.

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**UNIVERSITY AT ALBANY**  
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