...Celebrating Five Years of Collaboration & Innovation...



Center for Technology in Government • University at Albany, SUNY • 1998 Annual Report



Center for Technology in Government University at Albany, SUNY

1998 Annual Report July 1997 - June 1998 The Center for Technology in Government pursues new ways of applying computing and communications technologies to the practical problems of information management and service delivery in the public sector.

The Center's program seeks to reduce the costs and improve the quality of government services, reduce the risks of innovation, and share the results of its projects throughout the public sector. July 1998

Dear Friends,

It hardly seems possible that the Center for Technology in Government is celebrating its fifth anniversary. In 1993, we began operations with a staff of four in an abandoned television studio in the sub-basement of the University at Albany. It was a humble beginning, but an exciting one for the people in state government and at the University at Albany who shared a vision of how information technology can help transform public services. Scores of people worked tirelessly to make the vision real: senior government officials, experienced public managers, high tech corporations, and university administrators and faculty all contributed ideas, support,



and resources. Before long, we were engaged in a series of projects designed to help us all learn about the promise, possibilities, and pitfalls of using IT to foster major innovations in government services.

Our portfolio continues to expand in both depth and breadth. Projects that involved individual agencies have been joined by projects that focus on problems that cross organizational boundaries. Our initial focus on the state level has broadened to include increasing involvement with local governments. While our roots remain firmly grounded in the needs of New York State, our results have proven valuable to governments all over the country and around the world. Our partnership projects and multidisciplinary approach to understanding the interplay of technology and government have been recognized with several national awards including the prestigious Ford Foundation Award for Innovations in American Government.

Today, the old TV studio is just a memory, but our philosophy of partnerships, problem solving and knowledge building is stronger than ever. We are well advised and supported by dedicated and talented government and corporate managers, linked to the excellent teaching and research programs of several academic disciplines, and engaged in national and international government IT programs that exemplify the globalization of our society.

This year's annual report not only presents the work of the year just ended - it also celebrates five years of innovation and collaboration by reviewing the highlights of our entire program.

These have been busy, exciting years made all the more productive by the incalculable support of many colleagues and friends. I know this spirit of involvement and collaboration will make the next five years even better.

Sincerely

a ta kawa ka ta ^{ka}sa kasa

Sharon S. Dawes, Director

Newly completed projects

Innovation means new programs and services ...

Tying a Sensible Knot: A Practical Guide to State-Local Information Systems



State-local information systems operate in an environment of almost stunning complexity. They must recognize and account for enormous diversity of community settings, organizational cultures, structures, and staff. To be successful, they must deal with mismatched fiscal years; a range of hierarchical, team, and matrix management styles; and program-driven versus process-driven versus customer-driven work environments. They need to be meshed into the fabric of ongoing business processes and working relationships and relate to other information systems at both the state and local levels. They are clearly *not* "business as usual."

Coordinated state-local information systems offer the hope of integrated services to citizens and streamlined operations within government. Many government and professional organizations are searching for ways to make these essential systems more successful, but there is very little reliable information about what makes state-local projects succeed or fail. This study, sponsored by the New York State Office for Technology, was one of the first attempts in the US to analyze and document practices that lead to success.

We defined a state-local information system as one that links state and local agencies together in a coherent service delivery or administrative environment. Such a system facilitates information sharing for the achievement of mutual program or administrative goals. These systems address both individual and common needs and result from ongoing discourse among state and local participants.



rrent Rutledge

...knowledge building...learning...

... and learning to think and act differently about existing ones.

The project involved more than 150 New York state and local officials representing 17 state agencies, 19 counties, seven cities, 28 towns, and two villages. Eleven existing project teams helped document current issues, defined characteristics of ideal systems, and, through surveys and interviews, shared their good and bad experiences in developing intergovernmental information systems.

The result was "Tying a Sensible Knot: A Practical Guide to State-Local Information Systems." This handbook offers state and local officials a variety of practices that project managers and participants can use to develop successful state-local information systems. It emphasizes collaborative development of information systems, recognizes the diversity among local communities, and recommends ways to integrate systems with local business processes and existing systems.

The project also uncovered environmental factors that combine to reduce the effectiveness and increase the cost of all state-local systems. The final project report discusses these systemic constraints on effective systems and offers recommendations for mitigating their effects.



Participating Projects

Aging Network Client Based Service Management System Electronic Filing of Local Government Financial Reports Electronic Death Certificate Project Electronic Transfer of Dog License Data Hunting and Fishing Licenses Immunization Information Systems Project Probation Automation Project Real Property System Version 4 SALESNET Local Social Services District Imaging Project Electronic Voter Registration

...innovation...education...

Newly completed projects

Models for Action: Practical Approaches to Electronic Records Management & Preservation



Organizations need records to carry out their business activities and to document actions and decisions. However, with the shift from paper to digital information, many organizations find their electronic records are not sufficient to support their evidentiary needs. Others cannot link documents created in different formats to business transactions. Sometimes electronic records of enduring research or legal value are partially or entirely lost. Unfortunately, traditional system design methods do not give adequate attention to the creation, integration, management, and preservation of electronic records.

Models for Action was an attempt to develop a practical way to incorporate essential electronic records requirements into the design of new information systems. Funded in large part by a research grant from the National Historical Publications and Records Commission (NHPRC), the project was conducted in partnership with the New York State Archives and Records Administration (SARA). The project team included staff of the NYS Adirondack Park Agency (APA), eight corporate partners led by Intergraph Corporation, and University at Albany faculty and graduate students.



...technology...integration...



The project was designed to bridge the gap between theory and practice by producing generalizeable tools that link business objectives to sound records management practices:

- Functional Requirements to Ensure the Creation, Maintenance, and Preservation of Electronic Records integrates theoretical and practical work in the areas of electronic recordkeeping and archives. It defines "record" as "the complete set of documentation required to provide evidence of a business transaction" and comprises three requirements for comprehensive records: content, maintenance and accessibility over time, and system reliability.
- The Records Requirements Analysis and Implementation Tool translates the Functional Requirements into a series of questions and cues that assist in the comprehensive identification of records management requirements during the design of a new information system. It also assists in the identification of management, policy, and technology strategies for implementing the requirements.

The tools were tested at APA by building a prototype system, designed to improve the land use permit process, reduce transaction turnaround time, increase staff productivity, and demonstrate predictability and consistency in land use decisions. The prototype network-based integrated document management and workflow system was developed and used as a mechanism for identifying both the records requirements and management and policy strategies to support them in a full system implementation. The prototype was evaluated in terms of agency benefits and costs, the degree to which the original set of requirements was addressed, and the degree to which the tools met criteria for generalizeability to other organizations.

...problem solving...research...

Works in progress

Problem-solving approaches assess policy, management, & technology dimensions of public services & public management.

Using Information in Government

The Using Information in Government Program was launched in November 1997 when 90 state and local program and information resource managers came together to discuss the challenges they face in using government information for planning, operations, evaluation, and decision making.

The participants noted limited executive level appreciation for the value of information for program planning, monitoring, and evaluation. They cited a lack of understanding of the nature and level of financial, technical, and human investments necessary to use information well; inadequate use of existing information; and lost opportunities to create shared information resources that would benefit the entire state. A key problem was simply knowing what information already exists, and then locating it from among myriad databases and organizational sources. Other problems included concern about sensitive, personal, and confidential information, and drawing incorrect conclusions from inaccurate, out-of-date, incompatible, or poorly defined data. Data ownership, stewardship, and related organizational issues were also prominent, as were inadequate, inappropriate, and stand-alone technologies and systems. Workforce issues included the increasing difficulty of attracting and retaining IT staff and the need for information handling and analytical skills across all kinds of job categories.

Participants set these practical goals for the two-year Program:

- 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.

At present four agencies are engaged in projects to explore ways to understand and use information to manage their programs. They are the Office of Temporary and Disability Assistance (shelter programs for homeless families and single adults), the Office of the State Comptroller (local government contact management for the

...prototypes...partnerships...

Division of Municipal Affairs), the State Emergency Management Office (emergency response management), and the Central New York Psychiatric Center (operations management and resource deployment for field operations). A second round of projects will begin in early 1999.



Partnership for Advanced Computational Infrastructure

CTG is the lead government partner in the National Science Foundation's Partnership for Advanced Computational Infrastructure (PACI) program. This ten-year program is designed to maintain U.S. world leadership in computational science and engineering. The program involves computational scientists, computer scientists, and professionals in education, outreach, and training at more than fifty US universities.

CTG, head of the Education, Outreach, and Training for Government team, is working with other government partners, primarily at the University of Illinois at Urbana-Champaign, to help identify, develop, and disseminate innovative applications of PACI technologies relevant to the practical problems of federal, state, and local government. The first year was devoted to building awareness and understanding of how high performance computing and communications resources can and have been used in government. Our second year goal is to develop partnerships for one or more testbed applications in government, especially in the areas of knowledge management and group collaboration.

...experimentation...learning...

Works in progress



Gateways to the Past, Present & Future

A new research grant from the National Historical Publications and Records Commission extends our partnership with SARA to secondary uses of electronic records. While the primary use of records in government is to support and document specific business processes, responsible managers must also ensure that these records are available for other important uses: to support business processes in other agencies; to give the public access to needed information; to support the scientific analyses that are used to evaluate programs, inform policy-making, or plan facilities; and, to serve as a legal and historical record of government decisions. The historical record is essential to these secondary uses, which together can exceed the importance and impact of primary business uses of the same information.

Through a combination of best practices and project-based research, the project is addressing recordkeeping requirements in the context of the broad spectrum of historical and other secondary uses. The project is designed to produce records management processes and models to ensure that the data maintained by government agencies will be available and useable for the widest variety of contemporary and future public needs. As with *Models for Action*, this project seeks to generate practical tools with wide applicability in both the public and private sectors.

...evaluation...sharing....

Designing the Digital Government of the 21st Century

The National Science Foundation's (NSF) program on Digital Government supports experimentation and research to improve the information-based services that government provides to citizens or uses internally to carry out its mission. These services are often developed in the multi-layered federal-state-local system of program administration and service delivery. They involve complex interactions among the political, organizational, technological, cultural, and human factors that shape the implementation environment.

CTG has received an NSF grant to conduct an October 1998 workshop to identify and develop research themes and projects that focus on these important factors affecting the use of advanced information technology in government. Workshop participants will take a "program-centric" view of the information content and processing needs of major government functions, with special attention to the needs of program managers. During the two-day event, distinguished representatives from federal, state, and local government agencies will discuss these issues with leading social, information, and computer scientists and representatives from private industry and nonprofit foundations.



... productivity... quality...

Collaborative projects aim to improve service quality, productivity & coordination

The World Wide Web as a Universal Interface to Government Services

This project examined technical issues that affect the ability of government to either deliver networked services, or to conduct government operations more efficiently using a common user interface. The project, completed in 1996, examined and demonstrated the use of the World Wide Web as a Universal Interface to Government Services for New York State citizens. It assessed whether the Web should be viewed as the preferred method for delivery in four service areas: Information Dissemination, Business Applications, Education, and Group Collaboration.



Current Rutledge

....coordination...outreach...



Delivering on the Web: The Internet Services Testbed

The World Wide Web, offering virtually unlimited access and almost instant feedback, seems perfectly suited for government work. Most government organizations are eager to use the Web to deliver services to citizens and to conduct internal business. However, developing a service delivery strategy that incorporates the World Wide Web is neither simple, nor straightforward, nor inexpensive. Seven state and local agencies participated in this 1996 project to develop Web-based services for themselves, and uncover the practical lessons about the WWW that would assist other public agencies to effectively use this powerful new medium.

Creating a Statewide Spatial Data Repository & GIS Data Cooperative

Nearly every state agency and all local governments rely on spatial data to support some of their programs. Since the single largest cost of geographic information systems is the collection and creation of digital spatial data and since many spatial data sets can be used by different applications, this project focused on tools and policies for information sharing. It produced a prototype meta data repository accessible over the Internet and recommendations for a permanent data cooperative. The official New York State GIS Clearinghouse, based on the 1995 prototype, is now operated by the NYS Library.

Balancing Environmental Quality & Economic Vitality

Any citizen or business with a plan to develop real property in New York's six million acre Adirondack Park needs information or a permit from the Adirondack Park Agency. The agency's prototype project, completed in 1995, combined digital imaging, database, geographic information system, and workflow technologies to create an immediately accessible "electronic reference desk" which significantly speeds service for APA's 5000 customers.

....collaboration...innovation...

1993-97 Projects in Review

Making Psychiatric Assessments in Emergency Rooms

Over 100,000 people receive emergency psychiatric services in New York State each year. Research shows substantial variability in decisions to refer patients for psychiatric assessment, to admit them to inpatient care, or to release them to the community. The NYS Office of Mental Health, the University's Center for Policy Research, and a panel of expert clinicians collaborated on this 1995 project to develop a prototype decision model to help general hospital emergency personnel avoid inappropriate admissions and discharges, reduce errors, and improve the use of hospital resources.





Helping Small Businesses

Each year, about 35,000 small business entrepreneurs contact the NYS Business Permits program for help and information about the wide array of permits required to establish or maintain a business within New York State. In 1993, most callers to the permit assistance program encountered busy signals and had to wait to speak to a staff member in order to receive the information they needed. This project, completed in 1995, created a prototype voice recognition and response system, to allow callers the convenience of 24 hour direct access to the information they need.

Current Rutledge

...risk reduction...partnerships...



Current Rutledge

Groupware Testbed

In recent years, both government and business have been experimenting with teambased organizations and work assignments organized around complete service or administrative processes. During 1994, the Center's first technology testbed investigated "groupware" products which supported this trend. Several state agencies, including the Office of the State Comptroller and the Thruway Authority, tested and evaluated tools to support workflow, document management, project management, and "any time, any place" meetings.

Improving Customer Service Through Title Imaging

The NYS Department of Motor Vehicles issues more than 3.7 million vehicle titles each year. In 1990, vehicle owners waited up to 120 days for titles to be issued. This flagship project, which combined process reengineering, imaging, and workflow technologies showed how the number of processing steps could be cut in half and the entire process reduced to 30 days. It led to immediate improvement in title operations—without implementing costly new technology.

....savings....problem solving....

Partnerships produce a vibrant program that is not limited to one kind of policy area, a few technology solutions, or one way of looking at the issues.

The range of projects, problems, and technologies we've tackled over the past five years is a testament to the crucial role of partnerships in the CTG program. No single organization, especially one of our modest size, could hope to develop its own expertise in so many areas. Agency, corporate, and academic partners provide policy, management, technological, and analytical strength to every project. The result is a vibrant program that is not limited to one kind of policy area, a few technology solutions, or one way of looking at the issues.

This year, we have been honored to work with an array of agency partners who represent a wide variety of public programs and every level of government. Corporate partners worked cooperatively with us and with each other on program frameworks and project prototypes. University researchers and well-trained graduate students supported both the background research that helps us learn from others, and the evaluations that teach us lessons that can be shared in return.

1997-1998 Corporate Contributions		
	Project	
Audio Visual Sales & Service	Project events	2,275
Hewlett-Packard Company	Models for Action	1,500
Image Conversion System Inc.	Models for Action	420
Intergraph Corporation	Models for Action	109,995
MediaServ, Inc.	Models for Action	750
META Group, Inc.	Using Information in Government	32,800
Microsoft Corporation	Models for Action & Infrastructure	6,876
NCR	Using Information in Government	10,000
Oracle	Models for Action	126,925
Sybase, Inc.	Models for Action	3,000
Total		\$294,541

... productivity...quality...

Partnerships bring resources to the table that greatly enhance the value of our funding from New York State and external grants. This year, the value of those contributed resources brought our total resource level to \$1,625,701. Agency contributions totalled \$134,550, University at Albany support equaled \$33,700, and corporate inkind contributions of \$294,541 all added to our \$773,000 state appropriation. In addition, we received \$389,910 in research grants from the National Science Foundation and the National Historical Publications and Records Commission.

Over our five-year history, we have enjoyed the support of scores of organizations who generously shared the costs and risks – and the benefits – of government IT innovation projects.

Corporate Partners 1993-1998

AEQ, LLC

Allied Telesyn International Anixter, Inc. Applied GIS, Inc. АТ&Т Audio Visual Sales & Service Bay Networks **Bell Atlantic** Bellcore Blue Moon Training Systems Bluestone, Inc. Borland International, Inc. Computer Sciences Corp. Corel WordPerfect Deloitte & Touche LLP **Digital Equipment Corporation** Documentation Strategies, Inc. Environmental Systems Research Inst. Eric Elgar Excalibur Technologies Corp. Executive Systems Planning Inc. Full Circle Communications Grumman InfoConversion **GTE** Vantage Solutions Harlan Wallach Graphics Hewlett-Packard Company

IBM IKON Image Conversion Systems Inc. Inteligis Corp. Intergraph Corp. Intermedia Communications Lotus Development Corp. MediaServ, Inc. META Group, Inc. Microsoft Corp. **MultiTech** NCR New Vision Systems Novell, Inc. NYSERNet, Inc. Oracle Panduit Sales Corp. Precision Systems, Inc. RealTech Systems Corp. Silicon Graphics Computer Systems SUN Microsystems, Inc. Sybase, Inc. Unified Technologies, Inc. Xerox Corporation Xyplex, Inc.

...prototypes...collaboration...

Knowledge Building

Education, outreach & publications extend the learning of each small team to managers & scholars everywhere.

Education Program

During the past year, we launched a formal education program at CTG, designed to extend the learning value of project results into a series of workshops and seminars for both private sector and government audiences. The program combines one of our long-standing, successful programs for corporate partners, "Information, Technology, and Government," with new offerings based on our project methodology, "Making Smart IT Choices," and developing programs that draw on projects like Tying a Sensible Knot and the Internet Services Testbed.

Web Site

Our Web site continues to expand in both content and features. Every project publication and all of our practical products can be downloaded from the site. So far more than 12,000 copies were obtained electronically by our visitors. The Web site also presents information about our partners, research initiatives, policies, and organization. This year we added a search feature along with a periodic announcement service, CTG WebNews, that alerts subscribers to upcoming events and new material available for their use. We are especially pleased with the number and variety of organizations that link to our site. These range from academic programs



which make use of our publications and online analysis tools in the classroom, to government agencies at every level which refer to our handbooks and guidelines as examples of good practice.

...experimentation...learning...

Publications

Reports, working papers, handbooks, and guidelines, along with our quarterly newsletter, *Innovations*, present a detailed and lasting record of the Center's work. Our publications (available in both print and electronic form) now comprise more than 25 documents that offer both practical advice and conceptual frameworks for the issues all governments face in using IT effectively.

- Models for Action: Practical Approaches to Electronic Records Management & Preservation, 1998
- Survey of System Development Process Models, 1998
- Functional Requirements to Ensure the Creation, Maintenance, and Preservation of Electronic Records, 1998
- The Records Requirements Analysis and Implementation Tool, 1998
- A Cost/Performance Model for Assessing WWW Service Investments, 1997
- Tying a Sensible Knot: A Practical Guide to State-Local Information Systems, 1997
- A Survey Of Key Concepts and Issues for Electronic Recordkeeping, 1997
- An Introduction to Workflow Management Systems, 1997
- Partners in State-Local Information Systems: Lessons from the Field, 1997
- Tying a Sensible Knot: Executive Briefing Paper, 1997
- Making Smart IT Choices, 1996
- Developing and Delivering Government Services on the World Wide Web: Recommended Practices for NYS, 1996
- The World Wide Web as a Universal Interface to Government Services, 1996
- Delivering on the Web: The NYS Internet Services Testbed, 1996
- Sharing the Costs, Sharing the Benefits: The NYS GIS Cooperative Project, 1995
- The New York State Spatial Data Clearinghouse Technical Report, 1995
- Compelling Reasons for GIS Coordination in NYS, 1995
- A Framework for Evaluating Public Sector Geographic Information Systems, 1995
- Balancing Environmental Quality & Economic Vitality in the Adirondack Park, 1995
- Evaluating the APA Prototype: Prospects for Providing Cheaper, Faster, and Better Services, 1995
- Using Technology to Change Work: Technical Results from the APA Prototype, 1995
- Supporting Psychiatric Assessments in Emergency Rooms, 1995
- Report of the Field Test to Evaluate a Decision Support Tool for Psychiatric Assessments in Emergency Rooms, 1995
- Voice Information Response System, 1995
- Reviewing the Performance of ORMA's Voice Response System for Automated Business Permit Information, 1995
- Groupware Testbed, 1994
- Title Imaging, 1994

....coordination...outreach...

Applied research program

Applied research brings the theories & tools of social & information science to bear on the needs of government.

A Step Beyond Research: Fostering IT Innovations in Government



An October 1997 invitational workshop involved 32 scholars from Europe and North America in an exploration of the issues and opportunities for applied research to support IT innovation in government. It was funded in part by an Innovations in American Government grant from the Ford Foundation. The workshop activities focused on the sharing of ideas to improve the value of information technology (IT) research to government practitioners. It also sought to establish and strengthen communication and collaboration among government IT researchers. The workshop report outlines opportunities for applied research in such areas as service delivery mechanisms and information infrastucture and society: it identifies barriers and enablers to applied research; and suggests ways to build and support a community of scholars devoted to these issues. One immediate result of the workshop is our current involvement in the National Science Foundation Digital Government Program. Another is an evolving international comparative research program on new models of collaboration.

... productivity... quality...



New Models of Collaboration

Today, the role, structure, and functioning of government is undergoing dramatic transformation. Where governments were once organized to act independently or according to rigid rules, they are now involved in complex patterns of interdependence that demand new ways of thinking and acting. Traditional patterns of public management are being replaced by approaches that depend on collaboration, negotiation, and incentives among partners. The boundaries between government and business that served as clear lines of separation are now blurring as public-private partnerships emerge to address increasingly complex problems and goals. The relationship between government and citizens is also changing. People are coming to expect vastly different performance from government. They are little concerned with which level or unit or agency of government delivers a service, but are increasingly concerned that those services be sensible, cost-effective, convenient, and of high quality.

This initiative, proposed by CEFRIO, our newest research partner in Quebec, Canada, proposes a multi-national exploration of how technology, leadership, management strategies, organizational structures, cross-boundary relationships, financing mechanisms, and public participation can be integrated, and deployed to the benefit of citizens around the world.

...technology...integration...

1997-1998 Achievements & Awards

The year was marked by organizational, professional & personal achievements.

Grants Awarded

Gateways to the Past, Present and Future: Practical Guidelines for Secondary Uses of Electronic Records

Two-year, \$380,000 research grant awarded by the National Historical Publications and Records Commission.

Government Education, Outreach & Training

Multi-year program component of the National Partnership for Advanced Computational Infrastructure, a National Science Foundation funded program to create the Advanced Computational Infrastructure of the 21st Century.

Creating the Digital Government of the 21st Century

An \$80,000 workshop grant from the National Science Foundation to help define a future research agenda that will foster effective use of advanced technologies in government programs.

Awards Received

Tying a Sensible Knot: Practical Guidelines for State-Local Information Systems

National Association of State Information Resource Executives Award for Excellence in Information

Technology, Statewide Policy Initiatives Category, 1998

Sharon S. Dawes

Governing Magazine, Public Official of the Year, 1997

Degrees Earned

Theresa A. Pardo, Ph.D. Information Science, May 1998. "Reducing the Risks in Innovative Uses of Information Technology in the Public Sector: A Multidisciplinary Model"

Mballou Kaba, Master of Business Administration, Management Science and Information Systems, May 1998

Ophelia Eglene, Master of Business Administration, Marketing, May 1998



....collaboration...outreach...

National & International Presentations

Peter Bloniarz & Kai Larsen Studying the Use of a Network Organization for System Development Published in Information Resource Management Association 1997 conference proceedings
Peter Bloniarz & Kai Larsen Evaluating a Cost/Performance Model for Supporting Web Service Investments 1997 Society of Information Management
Sharon Dawes & Theresa Pardo Tying a Sensible Knot 1997 Society of Information Management
Kai Larsen & Claire McInerney Using the Cohort Model in Development of Web Sites and Web Policies Published in Association for Information Systems 1997 conference proceedings
Peter Bloniarz Keynote speaker at the University of Michigan, Flint Center for Outreach, Knowledge for Action Program, 1998
David Connelly Best Practices in Intergovernmental Information Systems 1998 American Society of Public Administration
Sharon Dawes Keynote speaker at the 1998 Conference on Information Technology in Public Administration
Darryl Green Developing and Delivering Government Services on the World Wide Web 1998 Association of Records Managers and Administrators
Kristine Kelly The Effects of a Group Model Building Intervention on Information Choices for Sustainable Development Decision Making 1998 System Dynamics Society
Kristine Kelly Planning for Information Management Systems: Part One 1998 Information Ecosystem: Managing the Life Cycle of Information for Preservation and Access

Theresa Pardo

Delivering Government Services on the Web: Management, Policy and Technology Lessons Learned from the Field 1998 American Society of Public Administration

...research...knowledge building...

Center for Technology in Government

Director

Sharon Dawes

Team Leaders

Peter Bloniarz, Research and Laboratory Director Sally Goodall, Operations Theresa Pardo, Project Director

Professional Staff

Donna Berlin, Internet Coordinator Ann DiCaterino, Project Support Manager Winsome Foderingham, Education Coordinator Darryl Green, Project Support Manager Linda Keane, Secretary Kristine Kelly, Project Research Manager Meghan Kiernan, Information Coordinator Claire McInerney, Information Coordinator Derek Werthmuller, Systems Administrator

Research & Faculty Fellows

David Andersen, Public Administration & Policy and Information Science Anthony Cresswell, Educational Administration & Policy and Information Science John Rohrbaugh, Public Administration & Policy Sandor Schuman, Public Administration & Policy

Graduate Assistants

David Connelly, Public Administration & Policy Ophelia Eglene, Business Mballou Kaba, Business Kai Larsen, Information Science Pamela Neely, Information Science Mei-Huei Tang, Computer Science Wen-Li Wang, Computer Science Jihong Zeng, Information Science

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