

## Reports (105)

### Enabling Open Government for All: A Road Map for Public Libraries

Dec 2014

This report presents the results of a year-long partnership with the Institute of Museum and Library Services (IMLS) and public library and open government experts. The project focused on responding to a growing question about how efforts to open government are influencing, and possibly changing, the role of public libraries in their communities. The report offers six recommendations about leveraging past practices and ensuring a future role for public libraries in the expanding open government agenda emerged from the research and expert meetings. In addition, the report provides two resources to support these recommendations and to help public libraries get started in building their open government agenda.

### Workshop Report: Exploring the integration of data-intensive analytical skills in public affairs education

Aug 2014

While much is being said and written about big data and data science, much less attention has been given to the skills required of the current and next generation of public managers, policy analysts, and informed citizens who are expected to use new data resources and tools effectively. To begin to address this gap, on May 9, 2014, the Center for Technology in Government at the University at Albany hosted a one-day National Science Foundation (NSF) workshop (Grant # 054069) to explore the integration of data-intensive analytical skills in public affairs education. The event represented the convergence of two streams of activity in the United States and Europe on the topics of policy informatics and policy modeling developed over the past several years. This report highlights the opportunities, challenges, and next steps that emerged from the day.

### Socioeconomic Benefits of Adding NASA Satellite Data to AirNow

Dec 2013

This report presents the results from a study that evaluated the socio-economic and financial benefits of adding NASA satellite data to AirNow. The benefits were evaluated using two approaches: 1) Face-to-face interviews in three case study locations (Denver, Colorado; Atlanta, Georgia; and Kansas City, Missouri) to assess the public value or community-level benefits and 2) Analysis of cost savings of using satellite data instead of installing new monitors to provide air quality information for public health decisions to populations in currently unmonitored locations. This report was prepared by CTG and STI for the US Environmental Protection Agency's Office of Air Quality Planning and Standards.

### Air Quality Data Use, Issues, and Value in Colorado

Dec 2013

This case describes the air quality conditions and related programs and issues centered in the area around Denver, Colorado, including an urban corridor from Ft. Collins in the north to Pueblo in the south. It is part of a larger study to understand how air quality information is currently used at the community level and to assess the potential benefits of enhancing air quality monitoring data from ground sensor networks with data gathered by satellites.

### Air Quality Data Use, Issues, and Value in Georgia

Dec 2013

This case describes the air quality conditions and related programs and issues centered in the area around Atlanta, Georgia. It is part of a larger study to understand how air quality information is currently used at the community level and to assess the potential benefits of enhancing air quality monitoring data from ground sensor networks with data gathered by satellites.

## Air Quality Data Use, Issues, and Value in Missouri

Dec 2013

This case describes the air quality conditions and related programs and issues centered in the area around Kansas City, Missouri. It is part of a larger study to understand how air quality information is currently used at the community level and to assess the potential benefits of enhancing air quality monitoring data from ground sensor networks with data gathered by satellites.

## The Dynamics of Opening Government Data

Nov 2012

The information polity perspective described in this paper provides government a way to identify the various stakeholders and their patterns of interaction that influence or control the generation, flows, and uses of enhanced information resources in open data initiatives. The dynamic modeling techniques used highlight the ways different constraints can impact the system as a whole and affect value creation. These tools support planners' ability to generate informed hypotheses about changing patterns of interaction among existing and potential new stakeholders. In this way, governments can better evaluate the costs, risks, and benefits of a wide variety of open data initiatives.

## Building On-ramps to International Research Collaboration: Replicable strategies for entry, productivity and sustainability

Oct 2012

Globalization presents important opportunities and difficult challenges that demand internationally-trained, culturally-aware researchers to collaborate on topics that cross borders, political systems, and cultures. International research collaborations on topics such as livability of cities, political participation, or the health of civil society offer potentially great benefit, but such work tends to be sporadic and informal because traditional research training and funding structures make it logistically and financially impractical. In response to this problem, from 2007 through 2010, we experimented with two low-cost innovative approaches or "on-ramps" to international collaboration in digital government research: a set of three international working groups composed of scholars from a variety of countries and disciplines and an annual residential research institute for PhD students to develop an early appreciation for the global impact ICTs on the public sector. This evaluation report shows that both approaches are low cost, high impact strategies to forge lasting networks of relationships as well as long-term career benefits.

## Modeling the Informational Relationships between Government and Society: A Pre-Workshop White Paper

Jul 2012

This white paper is part of a year long CTG thought leadership project with SAP focused on developing new research and practical tools for helping government produce public value from their open government initiatives. In June of 2012, the paper was shared with an international group of open government experts from government, academia, and the private sector; 25 of which convened at CTG in Albany, NY at the end of June. Workshop participants provided feedback on the conceptual model presented in the paper and crowdsourced ideas for improvement. CTG is using the results from the workshop to develop a final version of the paper and identify opportunities with the workshop participants for testing and implementing the approach with governments pursuing open government initiatives.

## Developing Public Value Metrics for Returns to Government ICT Investments

Jun 2012

This report presents a new approach to assessing public value returns as part of an overall return on investment analysis for government information and communication technologies (ICT). The approach addresses one basic question about public value assessment: What constitutes good evidence of public value impacts? The answers provided here are intended to augment the return on investment analysis methods found in the *E-Gov Economics Model: Real Impact for Better Government*, developed by Microsoft. However, the approach here has potential

uses beyond connection with that Model, and can be more generally useful in the assessment of public value returns to government programs and investments. The approach consists of a way to identify, collect, and interpret a variety of evidence, both quantitative and qualitative, that can be used to assess public value impacts. The approach is designed for use by government practitioners and analysts in connection with return on investment (ROI) analyses. It is particularly aimed at use in connection with the *E-Gov Economics Model* to examine ICT investments by national and sub-national governments. The report includes recommended methods to collect and analyze these forms of evidence. The approach is based on prior work of the Center for Technology in Government and a thorough review of available research and professional writing on the subject of measuring public value. That review includes research in the related scientific literature and a survey of best practices reported in literature about government IT value assessment in the US and other countries. A draft version of this report was shared with a sample of knowledgeable government officials and analysts for review and comments.

### Opening Government's Official Legal Materials: Authenticity and Integrity in the Digital World

Feb 2012

Increasingly, state governments are moving toward making primary legal materials available online via state government websites. The goal in these efforts, and also the challenge, is to provide users with more efficient access while ensuring that the electronic versions of primary legal materials are as "official" as their paper originals. The desire of state governments to make this a priority is strong. However, they currently lack the necessary policies and management practices necessary for success. State legislators and their staffs, legislative reference librarians, state archivists, and chief information officers all have important roles to play in laying the foundation for these efforts through the creation of new policy, management, and technology capabilities. This brief provides background to the recently approved Uniform Electronic Legal Material Act (UELMA), explores the concepts behind authenticated electronic materials, defines what it will take to create, maintain, and make available official electronic legal material, and provides recommendations for states.

### Does Mobility Make a Difference? A Cumulative Study of the Impact of Mobile Technology in New York State Child Protective Services

Jan 2012

Over the past six years, the New York State (NYS) Office of Children and Family Services (OCFS) has invested in a mobile technology strategy to support child protective services (CPS) work. This report presents results from a multi-year assessment on how the use of mobility technology has affected CPS casework. Findings suggest that laptop use has transformed on-call work processes, provided caseworkers with access to critical information while away from the office, and enabled an immersive community experience for caseworkers. These results have also led to modest, but meaningful improvements in productivity. The report also outlines elements of supportive mobile environments and offers recommendations for improving OCFS' mobile technology strategy.

### Information, Technology, and Governance: A Grand Challenges Research Agenda Workshop Summary Activity Report

Nov 2011

In February 2010, a group of leading social and information scientists and government practitioners came together to develop a new understanding of the way technology and social forces shape the workings of government. The workshop—Information, Technology, and Governance: A Grand Challenges Research Agenda—was sponsored by the National Science Foundation, with additional support from the National Association of Chief Information Officers (NASCIO). The Center for Technology in Government (CTG) at the University at Albany led the organizing effort of this two-day workshop with over 40 participants from across the country. This document presents a non-attribution account of the contributions made at the workshop as well as a brief analysis of the discussions and findings. The information presented in this report begins to shed light on complexities of identifying and addressing grand challenges in information, technology, and governance.

### AIRNow-I Shanghai: Crossing Cultures, Sharing Knowledge

Aug 2011

AIRNow-International (AIRNow-I) is an initiative led by the US Environmental Protection Agency (EPA) to

redesign the US air quality monitoring and public reporting system to be scalable, interoperable, portable, and affordable to any country. Its guiding vision is a readily usable worldwide platform for sharing air quality information to improve public health. This case study assesses the internationalization of AIRNow through the lens of a collaborative project between EPA and the Shanghai Environmental Monitoring Center (SEMC) in China. We trace the history of air quality policy and management in both countries and then explore the structure and dynamics of their joint effort to build AIRNow-I Shanghai. This report describes the influences of the separate Chinese and American contexts on the participants and their interactions, and identifies the ways in which they bridged many types of contextual distances to produce successful results.

## **An Open Government Research and Development Agenda Setting Workshop: A Summary Activity Report**

Jun 2011

The Open Government Research and Development Agenda Setting Workshop was sponsored and conducted by a collaborative team from the Center for Technology in Government (CTG) at the University at Albany, the Tetherless World Constellation (TWC) at Rensselaer Polytechnic Institute, the Institute for Law and Policy (IILP) at New York Law School, and Civic Commons was organized to outline a research agenda focused on opening up, federating, and using data to improve the lives of citizens. This activity report is an account of the contributions made at the workshop. Following the release of this activity report, we will focus on the analysis of the results working toward a set of recommendations and action steps.

## **Broadband Internet Service Adoption and Use in New York State Households**

May 2011

Broadband access for households has become an important resource for individuals and communities. A high speed connection to the internet provides opportunities for a great many economic, social and cultural benefits. This study was to done to explore the extent to which those opportunities and benefits are currently available to households in New York State. With the support of the NY State Office of Cyber Security, and the New York State Broadband Development and Deployment Council, the Center for Technology in Government partnered with Stony Brook University to conduct the study. We surveyed 3044 New York households to discover the extent of availability and adoption of broadband services and how they are used. We also asked about the social and economic characteristics of the households to explore how those factors affect broadband adoption and use. The results presented here cover 1002 surveys covering the state as a whole and an oversample of 2042 surveys in low income counties.

## **Information and Technology: Improving Public Sector Capability to Address Societal Challenges**

Oct 2010

This paper argues for a dedicated, social science-based research program to address the question “How do the societal context and institutional character of government interact with emerging information and communication technologies to shape the capabilities and performance of the public sector?” The ability to answer this question can only result from non-domain specific research that studies the societal context of government and the information resources and technologies affecting government. Because of government’s inherent complexity and unique role as the leader in addressing the world’s grand societal challenges, there is an urgent need to understand the practice context of government and how it influences the policy, management, and organizational political, and public factors that shape information use and IT applications. Currently there is a lack of research on the public sector and while there are devoted resources to government areas there is little scientific attention to the government organizations and processes that are both the sources and customers of the programs. With focus on this cross-cutting research, government can improve its capacity to serve society and researchers can seek opportunities for new theory development that links government context to the fundamental questions of organizational and technical action.

## **Information, Technology, and Governance: A Grand Challenges Research Agenda Pre-Workshop Paper**

Feb 2010

*Information, Technology, and Governance: A Grand Challenges Research Agenda* was a project sponsored by the National Science Foundation to craft a multi-year research program to address the grand challenges of government and governance in an environment of rapidly evolving social and technical change. The key event in the project was a workshop that brought together leaders from social and information science research and government to explore these grand challenge questions and develop a next generation research agenda, with a particular focus on socio-organizational contexts. The Pre-Workshop Paper was used to introduce the ideas behind the workshop and spur discussion on the issues.

### Exploratory Social Media Project Phase I: Identifying benefits and concerns surrounding use of social media in government

Dec 2009

In response to growing interest in and concerns about social media in the public sector among government professionals, CTG launched a project aimed at exploring some of the issues and benefits connected with social media tools. This report summarizes results from two workshops held with government professionals from New York State (NYS) as part of this project. The workshops were designed to collect information on the value NYS agencies seek in their current or future use of social media, as well as their most pressing questions and concerns regarding that use. The report summarizes the results from workshops, with full results provided in three appendices, and concludes with a section outlining the next steps in the project.

### Assessing Mobile Technologies in Child Protective Services (2008-2009): A Demonstration Project in 26 New York State Local Departments of Social Services

Dec 2009

The New York State (NYS) Mobile Technology Demonstration Project is a multi-year initiative to assess the use of mobile technologies in child protective services (CPS) work in New York State. Starting in 2006, this collaborative effort among the NYS Office of Children and Family Services (OCFS), county Departments of Social Services (DSS or local district), and the Center for Technology in Government (CTG) at the University at Albany has had four distinct evaluation studies. This assessment focuses on the most recent effort in 2008-2009. Starting in January 2009, twenty-six NYS local social service districts received mobile technologies for CPS. There were 505 mobile devices deployed CPS caseworkers and supervisors and managers. This assessment solely addresses measures of productivity and efficiency.

### Mitigating Cross-Border Air Pollution: The Power of A Network

Oct 2009

This report describes how a diverse mix of individuals and organizations representing two countries, three states, multiple levels of government, private industry, academia, and the public were able to successfully organize and then respond to improve air quality along the U.S. and Mexican border. The focal point of this study is the Joint Advisory Committee for the Improvement of Air Quality in the Ciudad Juárez, Chihuahua/El Paso, Texas/Doña Ana County, New Mexico Air Basin (the JAC). It was through the JAC that this diverse mix of key actors were able to navigate the complex web of political, cultural, legal, and economic factors that posed challenges to developing a unified response to this shared air quality problem. The JAC's strategies and methods were powerfully shaped by the characteristics of the physical setting and the organizational and political context. Many of these strategies and methods have considerable promise for other air shed regions, but must be tailored to the unique physical and social situations of each one.

### IT Governance Capability: Laying the foundation for government interoperability

Oct 2009

Creating interoperability in the governmental context requires government leaders to take responsibility for improving the capabilities of government agencies to effectively partner with other agencies and governments as well as the private sector, non-profit groups, and research institutions. Governance is a foundational capability for creating and improving government interoperability. Recent research conducted by the CTG draws on a comparative case study of IT governance to illustrate that while effective governance structures include a consistent set of elements or capabilities, there are also a wide range of context specific issues that must be

responded to in the governance design, development, and implementation processes.

## **Factors Influencing Government Cross-Boundary Information Sharing: Preliminary Analysis of a National Survey**

Sep 2009

This report summarizes the results of a national survey of cross-boundary information sharing in the public sector conducted by the Center for Technology in Government (CTG). This national study, conducted by CTG and supported by a grant from the National Science Foundation, was designed to understand how effective information integration and sharing occurs within and across boundaries of organizations. The purpose of the survey was to test the generalizability of a preliminary theoretical model of how policy, organizational, social, and technical factors interact to create criminal justice and public health information sharing capabilities. CTG developed this model based on the data collected and analyzed during earlier phases of the research project.

## **International Digital Government Research: A Reconnaissance Study (1994 - 2008) UPDATED**

Aug 2009

Today, digital government (DG) research is being conducted all over the world. Most of this work is focused within the geographic and political contexts of individual countries. However, given the growing influence of global economic, social, technical, and political forces, the questions embedded in digital government research are now expanding to international dimensions. A reconnaissance study such as this one focuses on the defining characteristics of a topic rather than an in-depth analysis. In this report, we describe the size, scope, variety, and trajectory of the field illustrated with selected studies and organizational profiles. This study is part of a multi-year effort funded by the United States (US) National Science Foundation (NSF) to create a framework for a sustainable global community of digital government researchers and research sponsors.

## **Creating Enhanced Enterprise Information Technology Governance for New York State: A Set of Recommendations for Value-Generating Change**

Aug 2009

New levels of capability for coordinated action across organizational boundaries are required in order for government to realize the transformative potential of technology and cope with new economic imperatives. This report outlines five recommendations for change developed through a collaborative, consensus-driven process conducted by CTG on behalf of the New York State CIO community. These recommendations are targeted at building new capability for enterprise information technology investment decision making for New York State. The recommendations extend existing enterprise IT governance capability by introducing a new level of transparency in decision making, increasing the opportunity for alignment of IT investments with New York State's strategic priorities, and fostering the development of policies and standards to guide those investments.

## **Enterprise IT Governance in State Government: State Profiles**

Aug 2009

Over the last fifteen years, the role of IT in state government has grown in prominence, which has drawn attention to how IT is governed at the state level. This report reviews enterprise IT governance arrangements in thirteen states (California, Florida, Georgia, Kansas, Kentucky, Maine, Michigan, Minnesota, New York, North Carolina, Pennsylvania, Texas, and Virginia). These states were selected to create a diverse set of examples and to gain a broad picture of state enterprise IT governance efforts in the United States. There are a total of five data summaries included within the report. First is a high-level comparison of state enterprise IT governance elements. This comparison is followed by a more detailed overview of three enterprise IT governance components: state CIO Councils, state executive IT boards, and budgetary authority for IT decisions. Finally, the report concludes with in-depth profiles and models of state enterprise IT governance arrangements in each of the thirteen states. Together, these resources provide one of the most comprehensive reviews of public sector IT governance currently available.

## **Maximizing Current and Future Mobile Technology Investments in New York**

## **State Child Protective Services**

Dec 2008

NYS's Office of Children and Family Services (OCFS) and the Center for Technology in Government (CTG) partnered to conduct an extended study of the use of connected laptops in child protective services (CPS). Previous pilot and demonstration assessments established a solid foundation of information to support a reasonably clear picture of the short term impacts of deploying and using laptops in CPS work. This assessment allowed a longer time period for data collection (8-10 months) and provided an opportunity to learn more about how laptops are integrated into CPS work, including examining mobility, productivity and satisfaction. This study also examines the long-term impacts and conditions necessary to maximize current and future mobile technology investments in NYS's child protective services.

## **Government Worth Having: A briefing on interoperability for government leaders**

Oct 2008

While public officials at all levels of government play important roles in interoperability efforts, government leaders alone have the power to alleviate the institutional constraints that impede these potentially transformative, but highly complex enterprise initiatives. Unfortunately, while leaders have the unique power to make these changes, experience shows that the policy environments they have created, or in many cases inherited, often limit the capability of governments to share authority, to collaborate, and to jointly and strategically manage enterprise initiatives. To change this, leaders must understand the link between their policy decisions and the capability of governments to create the systems necessary to share information and other resources across boundaries. This paper is for government leaders and presents a unique focus on creation of the policy and management capability, rather than technical capability, necessary to create interoperable government,. It presents a set of recommendations to guide these leaders in the development of policies and principles for action.

## **Improving Government Interoperability: A capability framework for government managers**

Oct 2008

This paper presents a framework for governments as they begin to move beyond the vision of a more effective government to the reality. Governments are finding that a typical hierarchical bureaucracy is not necessarily the best form of organization to meet citizen and other demands. Rather, governments are finding that a network form of organization where new groupings of persons and organizations must learn to work together and share information, exchange knowledge, and respond to demands in new ways is more appropriate. Interoperability is key to the success of these government networks. The framework focuses first on understanding the capabilities needed to develop and manage (i.e., plan, select, control, and evaluate) initiatives to improve interoperability among government agencies and their network partners, and second on determining the right mix of capabilities needed to share information across a network of organizations. The complete framework is provided for immediate use by government managers to assess existing and needed capabilities for improving government interoperability.

## **Assessing Mobile Technologies in Child Protective Services: A Demonstration Project in 23 New York State Local Departments of Social Services**

Mar 2008

NYS's Office of Children and Family Services (OCFS) and the Center for Technology in Government (CTG) partnered to learn more about the impact of mobile technology use in child protective services (CPS) in New York State. In the Demonstration Project in 23 Local Social Service Districts, 450 laptops and tablets were deployed to CPS caseworkers in 23 NYS Local Social Services Districts. CTG conducted the independent assessment where the evaluation focused on mobility, productivity, and satisfaction as well as addressed environmental factors in statewide IT deployment. The summary report looks at high level impacts across all districts and the profiles detail findings from each individual district.

## **2007 Center Review: Self Evaluation Report**

Mar 2008

This report was produced for the University at Albany's Vice President for Research, in response to a policy requirement calling for periodic reviews of research centers and institutes. The report, prepared by Center staff, covers the period from the Center's founding in 1993 to the present. It includes an overview of the Center's history, where we stand today, and our vision for the future. Although the audience for this report was originally external to the Center, preparing the report gave us a valuable opportunity to reflect on our fifteen years of research and project efforts to improve government through IT innovation. As a result we have a new appreciation and pride in the contribution our work has made to the practice of government in New York State and beyond, as well as to the study of digital government world wide. Through this report we are sharing our vision and our progress with our University colleagues, the broader academic community, and our government and private sector partners and friends.

### Using XML for Web Site Management: Lessons Learned Report

Jan 2008

This report is based on the lessons learned from CTG's XML Testbed. The success of the Testbed rested on the enthusiastic participation of five New York State (NYS) agencies who committed to extensive hours of workshops, training, and prototype development. CTG extends its thanks to the NYS Department of Civil Service, NYS Division of Housing and Community Renewal, NYS Higher Education Services Corporation, NYS Office for the Prevention of Domestic Violence, and the NYS Office of Cultural Education, State Education Department. The Testbed was undertaken in partnership with the Governor's Office of Employee Relations (GOER), the Office of the Chief Information Officer (OCIO), and the Office for Technology (OFT).

### Assessing Mobile Technologies in Child Protective Services: An Extended Pilot in New York City's Administration for Children's Services

Jan 2008

This assessment report was done under contract with the NYS Office of Children and Family Services (OCFS) and in conjunction with the NYC Administration for Children Services (ACS). This project involved a large scale deployment of wireless laptops to CPS workers in New York City's ACS. The pilot ran from August – October 2007 and involved approximately 135 child protective services workers and supervisors in the Staten Island and Williams Street (Manhattan) offices. The report shows the complexity of deploying technology into a well established profession. The study focused on mobility, productivity, and satisfaction, and includes a set of recommendations and future considerations.

### Exploring Regional Telecommunications Incident Response Coordination

Aug 2007

In an increasingly interconnected world, neither the public nor the private sector can claim sole stewardship of the critical infrastructure. These interdependencies require new kinds of coordination in a variety of areas, particularly in response to incidents that threaten the stability of the critical infrastructure. Events such as the World Trade Center attacks and Hurricane Katrina have generated new discussions among stakeholders about the coordination necessary to ensure continuity of operation of the critical infrastructure.

### Knowledge Sharing Innovations in the Natural Resources Community: A toolkit for community-based project teams

Aug 2007

*The Electronic Commons: a community led natural resource knowledge portal* was a collaborative program developed by the Wood Education and Resource Center of the United States Department of Agriculture (USDA) Forest Service, Northeastern Area States, and Northern Initiatives. The program was designed to increase understanding of the potential benefits of and challenges to using information technology for communication and knowledge sharing among natural-resource professionals and volunteer organizations, schools and communities neighboring national forests, as well as individuals interested in learning about natural-resource management. Eight project teams were funded to explore technology-based strategies such as Web sites and Webinars as tools for sharing knowledge on natural-resource topics of concern to their communities and to build communities of practice.

## **Using XML for Web Site Management: An Executive Briefing on streamlining workflow, reducing costs, and enhancing organizational value**

Jun 2007

Many of the new directions and developments on the Web have a basis in XML, which is becoming a critical technology for all types of information services. The features of XML emphasized in this Executive Briefing—open standard, reusability, technologically neutral—make it an ideal strategy for preparing for the future, while achieving efficiencies today.

## **Assessing Mobile Technologies in Child Protective Services**

Jan 2007

This assessment report was prepared by the Center for Technology in Government (CTG) under a contract with the NYS Office of Children and Family Services (OCFS). The purpose of the work was to assess the performance of mobile technology deployed in a pilot test program with child protective service (CPS) workers. The mobile technologies were deployed to a sample of CPS workers for use in their field work and reporting responsibilities. The pilot was conducted in three Local Departments of Social Services (Local Districts): the New York City Administration for Children's Services (NYC/ACS), Westchester County Department of Social Services, Family and Children's Services, and Monroe County Department of Human Services, Child and Family Services Division. OCFS engaged the Center for Technology in Government to conduct this assessment and provide a report to the Commissioner of OCFS to assist in decision making and planning for possible further deployment of these technologies.

## **New York State Information Technology Workforce Skills Assessment Statewide Survey Results**

Dec 2006

Information technology (IT) workforce issues have been a concern in New York State since the 1980s and were designated high priority areas in the 2004 and 2005 New York State Enterprise Information Technology Strategic Plans. As a result, in early 2005, the CIO Council HR Committee organized a partnership of state agencies, labor unions, and the Center for Technology in Government (CTG) to help design and administer two surveys. This report provides the key findings of the IT workforce skills assessment surveys administered during March and April 2006; involving nearly 5,000 IT professionals employed in state agencies, authorities, and boards.

## **Setting the Stage for an Electronic Health Record: A Business Analysis for the New York State Department of Correctional Services**

Dec 2006

This document reports on a project conducted by CTG on behalf of the New York State Department of Correctional Services (NYS DOCS) to explore the likely benefits and associated costs of an Electronic Health Record (EHR) for NYS DOCS. The project, moving towards an electronic health record for NYS DOCS, was initiated in the summer of 2005 by the former New York State Department of Correctional Services Commissioner, Glenn Goord.

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## **Advancing Return on Investment Analysis for Government IT: A Public Value Framework**

Oct 2006

This white paper provides an analysis process that starts with a high level view of the IT investment and then drills down through successive steps to identify the specific measures and methods that will reveal and document public value. The assessment can be tailored to the size and nature of a particular investment decision. The framework is broad in scope so that it can be applied to virtually any government IT investment – from simple Web sites to government-wide information systems and architectures.

## **Service New Brunswick (Case Study)**

Sep 2006

Service New Brunswick was launched in a time of high pressure from citizens in New Brunswick, Canada for improved service delivery. Today it serves the province through its award winning service delivery model, and also and maybe more importantly in the long run, through its innovations in economic development.

## **The Austrian Federal Budgeting and Bookkeeping System (Case Study)**

Sep 2006

The goal of the Austrian Federal Budgeting and Bookkeeping System project was to redesign and integrate the electronic workflow of the federal government's budget and bookkeeping processes. The strategy they chose was to implement a single Enterprise Resource Planning (ERP) software standard throughout the federal government, along with the adoption of necessary legal authority.

## **The Commonwealth of Pennsylvania's Integrated Enterprise System (Case Study)**

Sep 2006

The Commonwealth of Pennsylvania's Integrated Enterprise System Enterprise Resource Planning (ERP) software implementation put in place the technical infrastructure and enterprise standards for core government administrative functions with improved public value.

## **The Government of Israel's Merkava Project (Case Study)**

Sep 2006

The Government of Israel's Merkava Project is an effort to restructure the financial, logistics, and human resource components of government-wide administration into an integrated Enterprise Resource Planning (ERP) system. Merkava is also part of a comprehensive eGovernment initiative that includes five layers of new technologies and operational systems for enhanced internal operations and improved benefits and services to citizens.

## **The Washington State Digital Archives (Case Study)**

Sep 2006

Washington State's investment in digital archiving for government records provides a highly focused and successful example of pursuing public value through information technology.

## **Preserving State Government Digital Information: A Baseline Report**

July 2006

This report provides a baseline for state government digital information preservation capabilities and activities. It includes an analysis of the results across states and territories and presents several observations on the current digital preservation environment based on CTG's 2006 State Government Digital Information Preservation Survey.

## **State Government Digital Preservation Profiles**

Jul 2006

This Web-based resource provides profiles of state government digital information preservation efforts within the United States based on the information collected from the 2006 State Government Digital Information Preservation Survey. The profiles are organized by state or territory and the library, archives, and records management units that were represented in the survey response.

## **Use of Parcel Data in New York State: A Reconnaissance Study**

Jun 2005

This report presents the findings of a reconnaissance study on the use of parcel data in New York State. It documents the current and potential uses of parcel data, its value to many different kinds of organizations, and the typical flow of data across government and non-governmental boundaries.

## **Constructing the New York State-Local Internet Gateway Prototype: A Technical View**

Apr 2005

This report summarizes the technical development of the New York State-Local Internet Gateway Prototype. Each phase is highlighted including, prototype design, development, testing, and support. Also shared are lessons learned and considerations for future development.

## **New Models of Collaboration: An Overview**

Oct 2004

Governments around the world are experimenting with public service delivery systems that rely on cross-boundary collaboration among government agencies or between government and the private and non-profit sectors. This Overview summarizes a more complete guide that presents the success factors and case studies for 12 collaborations from around the globe.

## **Learning from Crisis: Lessons from the World Trade Center Response. A Research Symposium Panel Transcript Summary**

Aug 2004

The experience of September 11th was not an experience that government sustained by itself. Rather, it was an experience that crossed the public, private and nonprofit sectors and holds lessons for organizations of all kinds and sizes. In June 2004, the Center for Technology in Government (CTG) at the University at Albany, SUNY, put together a panel that represented these different perspectives.

## **Effective Strategies in Justice Information Integration: A Brief Current Practices Review**

Jul 2004

This current practices study contributes to a community-wide knowledge building effort by examining the factors that influenced the success of selected justice information integration initiatives.

## **Exemplary Practices in Electronic Records and Information Access Programs**

Jul 2004

This current practices research report identifies and describes exemplary practices in providing electronic access to information.

## **Highlights: Exploring the Feasibility of A Digital Government Journal**

Jul 2004

This project administered an online survey exploring the opinions and preferences of the digital government (DG) research community with respect to the need for, feasibility, and sustainability of a dedicated digital government journal.

## **The New York State-Local Internet Gateway Prototype Project: Current Practice Research**

Jul 2004

In the fall of 2002, the Center for Technology in Government (CTG) at the University at Albany conducted current practice research to identify and examine existing government to government (G2G) portal projects.

## **Information, Technology, and Coordination: Lessons from the World Trade Center Response**

Jun 2004

Research into what organizations did in the midst of the World Trade Center crises and response provides valuable lessons for improving crisis response and emergency management and planning. Equally important, the lessons reveal that interdependencies of human, organizational, and technological resources may benefit overall government operations in normal times.

## **Bridging the Enterprise: Lessons from the New York State-Local Internet Gateway Prototype**

May 2004

This project report details the Gateway Prototype project from conceptualization and development to findings and recommendations. The Prototype was developed to create a single point of contact among state and local governments to test and evaluate mechanisms for government-to-government (G2G) business relationships.

## **New York State-Local Internet Gateway Prototype Demonstration**

Apr 2004

This online demonstration shows the features and functions of the New York State-Local Internet Gateway Prototype. The Prototype was built to identify, demonstrate, and evaluate key factors associated with the design, development, and deployment of a single point of contact for G2G work among state and local governments in New York State.

## **Creating and Maintaining Proper Systems for Electronic Record Keeping**

Dec 2002

E-Government is changing the way government conducts business and captures records created during that business. This paper provides a framework for developing new e-government systems that foster electronic records management.

## **XML: A New Web Site Architecture**

Sep 2002

As Web sites have grown in size, complexity, and prominence, site management has become a growing concern for Webmasters, system administrators, and organizations as a whole. This paper discusses how XML technology simplifies the entire site management process.

## **Finding Our Future: A Research Agenda for the Research Enterprise**

Jul 2002

The research enterprise has grown into a \$112-billion endeavor involving thousands of organizations representing

every scientific discipline and field of knowledge. This report discusses the challenges facing that research enterprise, offers a vision of the ideal research enterprise, and lays out a supporting research and action agenda to help achieve it.

### The Future of E-Government

Jun 2002

This paper is based on testimony presented to the New York City Council on a sustainable definition and model of electronic government.

### Information Access in an Electronic World: A policy panel summary transcript

Mar 2002

Policies about online government information were a focus of attention following September 11th. This document provides a thought-provoking examination of how information policy issues were reassessed in response to those events.

### Insider's Guide to Using Information in Government Executive Briefing

Feb 2001

This executive briefing draws from real agency experience to provide a practical resource for the use of information by government professionals.

### What Citizens Want from E-Government

Oct 2000

Governments in the US are using a variety of methods to find out what citizens want from electronic government services. This report presents those methods, and weighs the pros and cons of each of them.

### New York State Central Accounting System Stakeholder Needs Analysis

Jul 2000

The Office of the New York State Comptroller decided to conduct an extensive stakeholder needs analysis before making any decisions about how to design and develop a next generation Central Accounting System (CAS). CTG worked with the agency on this project, and developed a set of recommendations for next steps in devising a plan for the CAS.

### Reassessing New York: A Collaborative Process

Jun 2000

In order to implement the state's new annual reassessment program, the New York State Office of Real Property Services set out to identify the needs of the local assessment community. CTG worked with this agency on the project, and produced a report that presents a collaboratively developed set of recommendations for moving the Annual Reassessment Program forward.

### New Models of Collaboration for Public Service delivery

Apr 2000

Collaborative partnerships in the public sector are helping to pave the way for new innovations in information and service delivery. This white paper summarizes the findings of a preliminary review of collaborative public sector service delivery methods.

### Putting Information Together

Feb 2000

Organizations spend millions of dollars putting information together in data warehouses, but as many as 50 to 80

percent of those projects fail. This report, which summarizes the fourth seminar in the UIG Seminar Series, highlights the lessons learned from the creation of the prototype Homeless Information Management System.

## **What Rules Govern the Use of Information?**

Oct 1999

Every government function depends on information, and each function has a set of policies behind it. This report, which summarizes the third seminar in the Using Information in Government Seminar Series, addresses the use of government information and the policies that govern that use.

## **Reconnaissance Study: Developing a Business Case for the Integration of Criminal Justice Information**

Sep 1999

This study provides a complex but optimistic picture for improving the integration of justice information. It provides an analysis of the current integration realities and discusses enablers and barriers to criminal justice information integration.

## **Building Integrated Data Repositories**

May 1999

Having the right skills, competencies, and technical tools can help government managers use information more effectively in their work. This report, which summarizes the second seminar in the UIG Seminar Series, focuses on ways to get the most from government information.

## **Research and Practical Experiences in the Use of Multiple Data Sources for Enterprise Level Planning and Decision Making: A Literature Review**

1999

Public and private sector organizations recognize the importance of information sharing as a way to improve planning and increase productivity. Because of this trend, the use of multiple data sources for enterprise level planning and decision making has become even more important. This paper identifies current research and practical experiences in the use of multiple data sources to support performance measurement, strategic planning, and interorganizational business processes.

## **Web-based Applications and/or Networked Legacy Systems**

1999

A multitude of private and public institutions are now using e-commerce to deliver products and services to customers and clients. For many of these organizations, jumping into the world of e-commerce means they must link legacy systems and their attached databases to new Web-based applications and distributed databases. The ramifications of this process are examined in this report.

## **Some Assembly Required: Building a Digital Government for the 21st Century**

Mar 1999

Information technology plays a crucial role in the public sector, and has the potential to transform the way government works. This report provides a set of recommendations for the National Science Foundation to design its Digital Government Research Program to help support that transformation.

## **Dealing with Data**

Feb 1999

Proper data management is instrumental for successful information systems. This report, which summarizes the first seminar in the UIG Seminar Series, focuses on data quality management, data tools and techniques, long

term maintenance and preservation, and real life experiences with data issues.

## **Data Quality Tools for Data Warehousing - A Small Sample Survey**

Oct 1998

The quality of data in data warehouses is crucial to the effective use of the warehouse. This paper examines the issues associated with data quality and maps the issues to features available in data quality software tools. Examples of the tools are also included.

## **New Models of Collaboration: GIS Coordination in New York State**

Oct 1998

Bringing an array of geographic information into a central system provides increased value to users, but coordinating that presents considerable challenges. This report describes how the New York State GIS Coordination Program was initiated and developed. It looks at the problems encountered and solutions tried, and focuses on data sharing and public-private sector partnerships.

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

Jul 1998

In an environment where business is increasingly conducted electronically, the management of electronic records is crucial. This report describes tools that help incorporate electronic records requirements into the design of new information systems.

## **Functional Requirements to Ensure the Creation, Maintenance, and Preservation of Electronic Records**

Apr 1998

The functional requirements of records include the reliability of the system in which the records reside, how the records are captured, and how they are maintained. This paper discusses the background, development, and usage of the functional requirements in CTG's Models for Action project.

## **A Survey of System Development Process Models**

Feb 1998

There are many different methods and techniques used to direct the life cycle of a software development project. This document provides an overview of common models that are used to guide the analysis, design, development, and maintenance of information systems.

## **An Introduction to Workflow Management Systems**

Nov 1997

With many different workflow management software solutions on the market, a variety of approaches to workflow management exist. This paper provides an introduction to Workflow Management Systems through a two-tiered approach: a functional review and a technical overview.

## **A Step Beyond Research: Fostering IT Innovations in Government**

Oct 1997

This report is a summary of the discussions that took place during the workshop ***A Step Beyond Research: Fostering IT Innovations in Government***. The 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 Innovation in Government: Toward an Applied Research Agenda, Part One: The practitioner perspective**

Oct 1997

This paper provides the practical perspective of studying government information technology issues. It is one of two papers that served as the background for discussions at an applied research workshop hosted by CTG in October 1997.

## **IT Innovation in Government: Toward an Applied Research Agenda, Part Two: The researcher perspective**

Oct 1997

This paper provides the research perspective of studying government information technology issues. It is one of two papers that served as the background for discussions at an applied research workshop hosted by CTG in October 1997.

## **Partners in State-Local Information Systems: Lessons from the Field**

Oct 1997

A state-local information system is one that links state and local agencies together in a coherent service delivery or administrative environment. This report discusses the findings of a research project that examined eleven state-local projects in New York State.

## **A Survey of Key Concepts and Issues for Electronic Recordkeeping**

Aug 1997

Knowing the key concepts of electronic recordkeeping is essential as agencies move from a largely paper-based business process to an electronic system. The report covers those key concepts.

## **Delivering on the Web: The NYS Internet Services Testbed**

Dec 1996

Government is all about information and service delivery. The Web seems perfectly suited for that work. This report presents a set of practical tools to help government agencies refine and narrow the objectives of the Web services they are developing.

## **The World Wide Web as a Universal Interface to Government Services**

Dec 1996

This report describes the results of research that tested the feasibility of using the Web to deliver services to citizens and conduct business among government agencies.

## **A Brief Survey of Internet Policies**

Apr 1996

As more government agencies use the Web, policies that guide Internet use are in their infancy. This paper presents the results of a survey conducted to collect and review government Internet policies between April and July 1996.

## **Internet Security Seminar**

Apr 1996

A day-long seminar on Internet Security was presented on April 2, 1996 by the Center for Technology in Government in conjunction with our corporate and public sector partners. It was the first of a series of annual

Internet security days held in New York State. This summary highlights the seminar sessions and results.

## **A Framework for Evaluating Public Sector Geographic Information Systems**

Dec 1995

Substantial opportunity exists to share spatial data, knowledge, and other resources across programs in the public and private sectors. This report discusses the mechanisms for evaluating public sector geographic information systems (GIS).

## **Balancing Environmental Quality and Economic Vitality in the Adirondack Park**

Dec 1995

The information needed to review a building permit application in New York's Adirondack Park comes from a range of sources. This report describes the work undertaken to develop and evaluate a prototype system to combine document records and geographic data into a unified "electronic reference desk".

## **Compelling Reasons for GIS Coordination in New York State**

Dec 1995

Coordinating geographic information collected by different agencies and local governments can help promote three program areas of vital importance in New York State: economic development, environmental conservation, and public health and safety.

## **Sharing the Costs, Sharing the Benefits: The NYS GIS Cooperative**

Dec 1995

The New York State Geographic Information System (GIS) Clearinghouse Cooperative project was undertaken to show the extent to which spatial data needs overlap among key policy and applications areas. This report demonstrates how data sharing strategies can reduce the cost and increase the value of GIS.

## **The New York State Spatial Data Clearinghouse Technical Report**

Dec 1995

Developing the New York State (NYS) Geographic Information System (GIS) Clearinghouse prototype required the adoption of standards and an effective search mechanism. This report presents how these were implemented in the NYS GIS Clearinghouse project.

## **Evaluating the APA Prototype: Prospects for Providing Cheaper, Faster, and Better Services to the APA's Customers**

Oct 1995

This report covers the findings from an evaluation of a prototype map retrieval system developed for the Adirondack Park Agency. Recommendations for a future system development strategy are included.

## **Using Technology to Change Work: Technical Results from the APA Prototype**

Oct 1995

Building an electronic reference desk that integrated government records and geographic information relied on a number of technical components. This report presents the technical results responsible for the development of that system.

## **Supporting Psychiatric Assessments in Emergency Rooms**

Sep 1995

With the assistance of an expert panel representing both practitioners and consumers of mental health services, a

computer-assisted decision model was developed to support psychiatric assessments in emergency rooms.

## **Report of the Field Test to Evaluate a Decision Support Tool for Psychiatric Assessments in Emergency Rooms**

Aug 1995

Field testing a prototype is critical to gauge its value for users. This report describes the results of the field test of a prototype decision support tool developed to help emergency physicians conduct psychiatric assessments.

## **Voice Information Response System**

May 1995

The telephone is the means by which most people deal with the government. This report presents the results of a project that developed a prototype voice response system for the NYS Office of Regulatory and Management Assistance.

## **Groupware Technology Testbed**

Nov 1994

Information technology tools and applications are supporting all types of government work. This report presents the results of a series of prototyping experiments conducted by CTG and state agencies on custom workflow, project management, document management, and meeting support systems using groupware tools.

## **Title Imaging Project with NYS Department of Motor Vehicles**

Nov 1994

Paperwork. Few words evoke such a negative picture of government operations. This report presents the results of a prototyping project that demonstrated document imaging and work flow solutions in the vehicle title operation at the New York State Department of Motor Vehicles (DMV).

## **Reviewing the Performance of ORMA's Voice Response System for Automated Business Permit Information: Integrating Technical, Cost-Based, and Customer-Oriented Evaluations of System Performance**

Mar 1995

A prototype voice response system was designed to improve the way business permit inquiries were handled by the New York State Office of Regulatory and Management Assistance. This report presents the results of testing that prototype system.