

## All (162)

### Guides (17)



#### Using XML for Web Site Management: Getting Started Guide

Sep 2006

Despite the clear advantages of XML, government confronts many obstacles to the adoption and implementation of XML-based Web site management. By using the guide, government agencies can gain new insights into how they can benefit from XML and develop strategies to address the technical and organizational issues to get started.

#### Sharing Justice Information: A Capability Assessment Toolkit

Nov 2005

The justice enterprise faces many performance challenges that can be addressed more successfully through better information-sharing initiatives. This toolkit is designed for justice professionals to use when considering or planning for a justice information-sharing initiative.

#### Why Assess Information Sharing Capability?

Dec 2005

Government faces many challenges that can be addressed more successfully when information is shared across organizational boundaries. Initiatives that depend on these kinds of information sharing are typically complex, difficult, and prone to failure. They are more likely to succeed when they include a comprehensive and systematic assessment of both organizational and technical information sharing capabilities.

#### Building State Government Digital Preservation Partnerships: A Capability Assessment and Planning Toolkit, Version 1.0

Aug 2005

Decisions to invest in digital preservation projects must be grounded in a full understanding of the ability of those involved to identify and fill the gaps between current and required capability. This toolkit is designed for library, archives, records management, and information technology professionals to assess where capability for digital preservation exists and where it must be developed in order to achieve the goal of preserving significant at-risk government information.

#### Return on Investment In Information Technology: A Guide for Managers

Aug 2004

New information technology (IT) systems are serious, and potentially risky, investments for government agencies and nonprofit organizations. This guide is designed to help public sector managers better understand how a return on investment (ROI) analysis can take some of that risk out of their next IT investment.

#### Making Smart IT Choices: Understanding Value and Risk in Government IT

## **Investments**

Apr 2004

IT innovation is risky business in every organization. In the complex public sector environment, these risks are even greater. This handbook is designed to help any government manager evaluate IT innovations before deciding (with greater confidence) to make a significant investment.

## **Untangle the Web: Delivering Municipal Services Through the Internet**

Dec 2002

The Web offers people and organizations a new way to interact and communicate. This report provides a framework for helping local governments achieve the benefits of the Web without being overcome by its complexity.

## **Making a Case for Local E-Government**

Jul 2002

Local and county governments are exploring the best ways to implement e-government. This report details the strategies, funding, barriers, and benefits brought to bear by several New York State local e-government pioneering initiatives, with insight and advice for their colleagues.

## **Opening Gateways: A Practical Guide for Designing Electronic Records Access Programs**

Jan 2002

Increasingly, government information is being created and stored in electronic records. The transition from a paper to an electronic way of working poses new challenges to government agencies. This guide is designed to help government agencies develop affordable, manageable, and effective electronic records access programs.

## **And Justice for All: Designing Your Business Case for Integrating Justice Information**

May 2000

Efforts to improve public safety in the United States are pointing to an increasing need for justice agencies to share information. This guidebook offers a series of lessons and tools justice officials can use to build business cases to win support and funding for integrated justice information systems.

## **Conducting Best and Current Practices Research: A Starter Kit**

Jan 2000

Best and current practice research can help government managers learn from the experiences of others and discover what works and what doesn't. This starter kit contains step-by-step instructions for how to conduct that research.

## **Practical Tools for Electronic Records Management and Preservation**

Jan 1999

Most organizations are increasingly managing work and making decisions based on electronic information. This guide provides the tools that were developed to help information and program managers integrate essential records management requirements into the design of new information systems.

## **The Records Requirements Analysis and Implementation Tool**

Apr 1998

In order to design sound electronic recordkeeping practices within an organization, the necessary requirements must be identified and understood. This paper presents the two components of a tool that can help organizations

complete that work.

## **A Cost Performance Model for Assessing WWW Service Investments**

Jun 1997

Creating an effective Web site at an efficient cost is a goal for most government agencies. This guide was created to help organizations develop Web sites that meet their needs at a cost that they can estimate in advance.

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

Jun 1997

State-local information systems must recognize and account for enormous diversity of community settings, organizational cultures, structures, staff. This report, based on eleven initiatives in New York State, presents principles and practices for ideal state-local information systems.

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

Sep 1996

The anytime, anywhere character of the Internet allows government information and services to be more available to more people. These guidelines present principles to help government agencies in New York State decide how best to design, manage, and market Web services.

## **A WWW Starter Kit**

Apr 1996

Being on the Internet can mean many different things. For most government organizations, it means creating a Web site. This starter kit is designed to help begin the process of getting on the Web without having to reinvent the wheel.

## **Online Tools (5)**



## **The XML Toolkit**

Apr 2006

The XML Toolkit is a Web site product of CTG's Web Site Management Using XML: A Testbed Project, which served to assist New York State agencies in examining the benefits as well as the challenges of Web site management using the emerging technology of XML. It contains a library of XML resources and is intended to grow over time and benefit from the contributions of the online community.

## **New Models of Collaboration for Delivering Government Services: A Guide for Managers**

Jan 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 guide focuses on the key elements of these new working arrangements of particular importance to the people who will design and manage them.

## Opening Gateways: Online Workbench

Dec 2003

The online workbench is provided as a companion piece to **Opening Gateways: A Practical Guide for Designing Electronic Records Access Programs**. It is an interactive version of the Guide enhanced with features that support groups of people as they collaborate on the development of electronic records programs.

## e-Gov FirstStop

Apr 2002

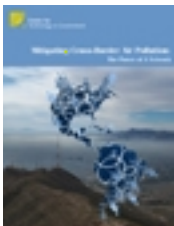
The Internet offers an overwhelming amount of information about e-government. This new Web resource provides the top quality material by providing a carefully selected collection of e-government resources including executive-level briefings, research and best practice reports, case studies, and Web sites. Please note that **e-Gov FirstStop** was developed as a prototype resource and was operational from April through September of 2002. It has not been updated since September of 2002 and will not be updated in the future. It is temporarily unavailable.

## Insider's Guide to Using Information in Government

Nov 2000

Every day, the people inside government use information to develop policies, make decisions, evaluate programs, and deliver services. This Web resource draws from real agency experiences to provide a practical resource for government professionals who use information to do their jobs.

## Reports (84)



## 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.

## Identifying the Value of Enhanced IT Enterprise Governance

Dec 2008

This draft report summarizes the results from the first of four rounds of workshops designed to engage our project partners in **Creating an Enterprise IT Governance Framework for New York State Government**. The first two events involved New York state and local CIOs at two locations, Albany and New York City. Participants shared their expertise and provided input about how IT governance could be enhanced within New York State, with a particular focus on the potential value of enterprise governance.

## 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.

## **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 benefits and challenges in using information technology for communication and knowledge sharing. 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.

## **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**

Jul 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 describes the technical development of the New York State-Local Internet Gateway Prototype. Each phase is highlighted including prototype design, development, testing, and support. It concludes with 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**

1 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 American 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.

## **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.

## **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).

## **Journal Articles and Conference Papers (32)**



## **Clarity of Roles and Responsibilities in Government Cross-Boundary Information Sharing Initiatives: Identifying the Determinants**

Proceedings of 5th International Conference on e-Government, Oct 2009, pp.148-155

Research has shown that clarity of roles and responsibilities (CRR) influences the effectiveness and performance of individual organizations as well as cross-boundary or interorganizational group efforts. Role clarity increases job satisfaction, commitment, and involvement and reduces tension and anxiety among organizational members, which results in lower staff turnover rates in organizations. In addition, CRR has been found to enable other important determinants of success in cross-boundary information sharing (CBI), such as building trust among members of CBI initiatives. However, few studies attempt to understand the determinants of CRR in a CBI initiative. Using data from semi-structured interviews from eight U.S. state and local government public health and criminal justice information sharing cases, this paper seeks to fill this gap by examining these determinants.

## **From “Need to Know” to “Need to Share”: Tangled Problems, Information Boundaries, and the Building of Public Sector Knowledge Networks**

This is an electronic version of an Article published in Public Administration Review, Volume 69, Issue 3 (p 392-402) © 2009 the American Society for Public Administration, May 2009, twelve pages

Public managers confront tangled problems every day across all policy domains and levels of government, and they need to be ready to deal with them through networked forms of engagement and action. Knowledge networking—the ability to create public sector knowledge networks (PSKNs) suitable for addressing these

problems—requires a certain set of skills and attitudes, as well as interpersonal and other kinds of trust. Network development processes that emphasize early, open dialogue and examination of assumptions and expectations do better than those that rush forward with a fixed IT solution in mind. Those that adapt and learn from experience are more likely to succeed in achieving their substantive project and networking goals. Finally, to be sustainable as organizational forms, knowledge networks need some legal foundation, access to resources, supportive policies, and innovative forms of leadership.

## **Governance structures in cross-boundary information sharing: Lessons from state and local criminal justice initiatives**

Proceedings of the Forty-First Annual Hawaii International Conference on System Sciences (HICSS 2008), Jan 2008, p.211

Governments are increasingly using collaborative, cross-boundary strategies to face complex social problems. Many of these cross-boundary initiatives have at their core the use, and in many cases, the sharing of information and communication technologies. In fact, government managers and researchers alike are now recognizing the value and great opportunities offered by cross-boundary information sharing, in particular. Current research has identified important factors that affect these cross-boundary information sharing initiatives. Governance structures are among those factors found to be important in cross-boundary information sharing. However, there is little research about the determinants of an effective governance structure in these multi-organizational settings. Based on semistructured interviews with participants in four state and local government criminal justice initiatives, this paper systematically identifies the determinants of governance structures for cross-boundary information sharing initiatives. By doing so, this study contributes to theory, but also supports the development of more specific guidelines for public managers and other individuals involved in crossboundary information sharing.

## **Informal leadership and networks: Lessons from the response to the West Nile Virus outbreak in North America**

Paper presented at the eChallenges e-2007 Conference, The Hague, Netherlands, Oct 2007

Sharing information across organizational boundaries in support of a governmental response to crises requires intergovernmental collaboration and information sharing. Examining these efforts provides an opportunity to explore questions about the role of various actors in such response efforts; in particular, informal leaders. This paper, based on a comparative case analysis of the response to West Nile virus (WNV) in two US states, New York and Colorado, extends what is known about leadership by providing new understanding about how informal leadership affects collaborative information sharing. The case analysis contributes to current knowledge about government leadership in complex networked environments such as a public health crisis. A set of propositions drawn from the analysis provides a preliminary model of the mechanisms through which informal leadership affects intergovernmental information sharing in crisis response. The findings also provide lessons about the role informal leaders play in cross-boundary information sharing and, consequently, in generating government capacity to respond to complex public problems as well as the foundation for a set of recommendations for practitioners.

## **Government leadership in multi-sector IT-enabled networks: Lessons from the response to the West Nile Virus outbreak**

Paper presented at “Leading the Future of the Public Sector” – The Third Transatlantic Dialogue, Newark, DE, Jun 2007

Government leaders at all levels are realizing that sharing information across organizational boundaries is essential to effectively respond to the most pressing public problems facing governments. A public health crisis, such as the outbreak of the West Nile virus in the United States, represents one of these pressing public problems. Sharing information across organizational boundaries in support of a governmental response required intergovernmental and multi-sectoral collaboration and information sharing. Examining these efforts provides an opportunity to explore questions about various actors in such response efforts; in particular, executives and informal leaders. This paper, based on a comparative case analysis of the response to West Nile virus (WNV) in two US states, New York and Colorado, extends what is known about leadership by providing new understanding about the mechanisms through which executive involvement, and formal authority, informal leadership affect multi-sector collaborative information sharing. The case analysis contributes to current knowledge about government leadership in complex, multi-sectoral network environments such as a public health crisis. A set of propositions drawn from the analysis provide a preliminary model of the mechanisms through which leadership

riables affect intergovernmental and multi-sector information sharing in crisis response. The findings provide new insight for practitioners about the mechanisms through which executives and informal leaders influence cross-boundary information sharing and ultimately the capability of government organizations to respond to complex public problems.

## **Emergence of the governance structure for information integration across governmental agencies: A system dynamics approach**

Proceedings of the Eighth Annual International Conference on Digital Government Research: Bridging Disciplines & Domains (dg.o 2007), May 2007, pp.47-56

The purpose of this paper is to describe a dynamic theory of the socio-technical processes involved in the definition of an Integration Information problem in New York State (NYS). In April 2003, the Criminal Justice Information Technology (CJIT) group of NYS was tasked with developing a framework to give users of criminal justice data and information systems “one-stop shopping” access to information needed to accomplish their mission. CJIT collaborated with the Center for Technology in Government (CTG) for an eight-month period during 2003 to accomplish this task. The theory consists of a system dynamics model for understanding the dynamics of the collaboration involved in the problem definition stage of a project. The model was developed in facilitated group modeling sessions with the CTG team. The model is capable to generate interesting scenarios that show the importance of social accumulations in project management. Moreover, the model illustrates a powerful way to use modeling and simulation as theory-building tools.

## **From Agency to Structure: Analysis of an Episode in a Facilitation Process**

Human Relations, Volume 59, Number 4, Mar 2007, pp 533–565

In recent publications in organizational communication, the phenomenon of nonhuman agency has been highlighted as a key element whose recognition might allow researchers to better account for the nature and functioning of organizations. This approach consists of showing that the roles machines, tools, documents, architectural elements, and artifacts more generally play in collectives tend to be neglected in social sciences in general and organizational studies in particular, and that recognizing the active contribution of these elements might help us solve both theoretical and analytical problems.

## **Authority and Leadership Patterns in Public Sector Knowledge Networks**

The American Review of Public Administration, Volume 37, Number 1, 007, pp 91-113

Knowledge and information-sharing networks are emerging in an increasing number of government programs and policy arenas. This article reports the results of an exploratory investigation into ways in which leadership and formal authority shaped the course of four knowledge network initiatives. The study treats authority as both formal and perceived. Leadership is assessed in terms of style, focus, and communication strategies. Analysis of the various authority and leadership patterns found in the case studies generated a set of hypotheses with regard to their influence on success of knowledge networks. Findings reveal that formal authority, perceived authority, and a variety of leadership behaviors appear to have important influence on the development and performance of public sector knowledge networks. These factors affect the ability of such networks to achieve their substantive goals and the degree to which these efforts provide satisfying and useful networking relationships among the participants.

## **Understanding Context through a Comprehensive Prototyping Experience: A Testbed Research Strategy for Emerging Technologies**

Proceedings of the 40th Annual Hawaii International Conference on System Sciences (CD/ROM), January 3-6,2007, Computer Society Press, Jan 2007, Ten pages

Information and Communication Technologies (ICTs) are rapidly changing and new technologies, processes, and skills are constantly emerging. An important challenge for the research community is to gain knowledge about these emergent technologies in specific contexts, sometimes before they are actually implemented. This paper draws on our experience in the use of comprehensive prototyping as a methodology for building understanding of emerging technologies in new contexts. A Testbed research strategy combines various prototyping, business analysis, team work, and training techniques to understand the specific characteristics of a technology and the context in which it is going to be embedded. The paper presents three cases of Testbed research approaches developed within a 10 year period and presents some insights based on those experiences to inform the efforts of

both practitioners and researchers.

## **Measuring Return on Government IT Investments**

Proceedings of the 13th European Conference on Information Technology Evaluation, Genoa Italy, 28-29 September 2006, Oct 2006, Thirteen pages

Based on findings from CTG's Advancing Return on Investment Analysis for Government IT project this paper discusses the similarities and differences of approaches, models, and methodologies developed and utilized for measuring ROI in IT investment, particularly in the public sector. The paper also provides a descriptive data analysis of trends in IT investments in United States.

## **Multi-method approaches to understanding the complexity of e-government**

International Journal on Computers, Systems and Signals, Volume 7, Number 2, Oct 2006, pp. 3-17

Electronic government is a complex phenomenon which involves technical, organizational, institutional and environmental aspects. Researchers from different disciplines are increasingly finding that using multiple methods can help to deal with complexity and obtain more comprehensive explanations. This paper argues that multi-method approaches can be useful for e-government research. A set of advantages and challenges to multi-method approaches are introduced and then used to frame a case analysis. Two case studies involving multi-method approaches to e-government research are presented to illustrate strategies for responding to implementation challenges in both large-scale and small-scale projects. This case analysis contributes to the discussion about multi-method research designs and their role in digital government research. Insights into management strategies specifically designed to respond to the digital government context and the adoption of relevant methodologies drawn from the experiences of the authors are provided.

## **Building response capacity through cross-boundary information sharing: The critical role of trust**

Paper presented at the eChallenges e-2006 Conference, Barcelona, Spain, Oct 2006

Governments around the world are increasingly turning to information sharing and integration to help solve problems in a wide range of programs and policy areas. These complex interorganizational efforts face not only the technical challenges of many information technology initiatives, but also the difficulties derived from interacting among multiple and diverse organizations. Trust has been identified as one the most important organizational factors for cross-boundary information sharing and integration. However, more research is needed regarding the determinants of trust building in this multi-organizational contexts. This paper highlights the relevant role of trust in cross-boundary information sharing initiatives and provides evidence about three of its most important determinants.

## **Building a state government digital preservation community: Lessons on interorganizational collaboration.**

Proceedings of the 7th Annual International Conference on Digital Government Research, USA, 277-284, May 2006, Eight pages

Based on the findings of 2005 Library of Congress workshops and previous efforts on digital preservation, this paper discusses the challenges and opportunities regarding interorganizational collaboration and community building for digital preservation of state government information.

## **The Effect of Organizational/ Technological Factors and the Nature of Knowledge on Knowledge Sharing**

Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Sciences (CD-ROM), January 4-7, 2006, Computer Society Press, Feb 2006, Ten pages

This study investigates the dynamics of a knowledge sharing effort in New York State government that involved multiple organizations, divisions, and geographically separated offices in the development of the Multi-Purpose Access for Customer Relations & Operational Support System.

## Can Government be a Good eBay? The Use of Online Auctions in the Sale of Surplus Property

Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Sciences (CD-ROM), January 4-7,2006, Computer Society Press, Jan 2006, Eight pages

E-commerce, and online auctions in particular, represent important examples of how information and communication technologies have been employed by public organizations to gain benefits in both efficiency and effectiveness. In this article, we discuss the three-year experience gained by New York State in the use of online auctions for the sale of surplus inventory and property.

## Challenges of Treating Information as a Public Resource: The Case of Parcel Data

Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Sciences (CD-ROM), January 4-7,2006, Computer Society Press, Jan 2006, Ten pages

Land parcels are the foundation for many aspects of public and community life. This report presents the findings of a study of information about land parcels in New York State. It identifies stakeholders and their interests as well as the needs and issues associated with the uses of parcel data in the public, private, and nonprofit sectors.

## Enacting State Websites: A Mixed Method Study Exploring E-Government Success in Multi-Organizational Settings

Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Sciences (CD-ROM), January 4-7,2006, Computer Society Press, Jan 2006, Ten pages

E-government is increasingly been used for government administrative reform. In fact, spending in e-government initiatives continues to rise and, among these projects, Internet-based applications are increasingly important. Using a nested research design, this study explores the complex relationships among the relative success of state websites and certain organizational, institutional, and contextual factors.

## Learning about Interoperability for Emergency Response: Geographic Information Technologies and the World Trade Center Crisis

Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Sciences (CD-ROM), January 4-7,2006, Computer Society Press, Jan 2006, Ten pages

Using structuration theory, this paper argues that the World Trade Center crisis was a catalyst for a change in the conceptualization of GIT for emergency response and, consequently, much was learned about interoperability and inter- organizational geographic information systems.

## Multi-Method Approaches to Digital Government Research: Value Lessons and Implementation Challenges

Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Sciences (CD-ROM), January 4-7,2006, Computer Society Press, Jan 2006, p.67a

Digital government is a complex organizational and social phenomenon. It involves technical, organizational, and policy elements, as well as their complex and recursive interactions. Multi-method approaches have been shown as capable of presenting more comprehensive explanations of complex situations. This paper argues that multi-method approaches are valuable alternatives for e- government research.

## Understanding the Complexity of E-Government: Multi-method Approaches to Social Phenomena

Paper presented at the 66th Annual Conference of the American Society for Public Administration, Milwaukee, WI, Oct 2005, Eleven pages

This paper contributes to the ongoing debate about multi-method approaches to studying social phenomena; in

this contribution e-government is the social phenomenon of interest. A set of advantages and challenges to multi-method approaches are introduced and then used to frame a case analysis. Two case studies involving multi-method approaches to e-government research are presented to illustrate strategies for responding to implementation challenges in both large-scale and small-scale projects. The case discussion provides new insight into how the challenges to multi-method approaches can be managed.

## **Interorganizational Information Integration in the Criminal Justice Enterprise: Preliminary Lessons from State and County Initiatives**

Proceedings of the Thirty-Eighth Annual Hawaii International Conference on System Sciences (HICSS 2005), Jan 2005

Traditional governmental structures have organized the capture, use, and management of information along agency lines. These “information silos” are not very useful in a dynamic environment. Information integration is considered one of the most significant ways to change the structure and function of public organizations. It has the potential to support the transformation of organizational structures and communication channels between and among multiple agencies working in different locations. This article contributes to this knowledge-building effort by examining the factors that influenced the success of selected criminal justice integration initiatives. Useful integration strategies are also identified.

## **Criminal Justice culture in the United States: A context for understanding aspects of organizational change**

Paper presented at the National Conference of Hungarian Psychological Association (PSZICHOLOGIA 2004), Debrecen, Hungary, Oct 2004

As statistics show, violent crime is more prevalent in the US than in Hungary. Consequently, U.S. law enforcement, and a wide range of criminal justice agencies, are seen as an important part of government. These agencies embody characteristics that make them similar to and different from their counterparts in other areas of government. The research reported on here unveils some of these characteristics as it looks at interactions among criminal justice agencies in their efforts to develop structures within which to share and integrate information across organizational boundaries in order to reduce crimes.

## **Emergence of the governance structure for information integration across governmental agencies: A system dynamics approach**

Proceedings of the Twenty-Second International Conference of the System Dynamics Society, Oct 2004, pp.82-83

The purpose of this paper is to describe a dynamic theory of the socio-technical processes involved in the definition of an Integration Information problem in New York State (NYS). In April 2003, the Criminal Justice Information Technology (CJIT) group of NYS was tasked with developing a framework to fulfill the goal of giving users of criminal justice data and information systems “one-stop shopping” access to the information needed to accomplish their mission. The research team of the Center for Technology in Government (CTG) collaborated with the CJIT group for an eight-month period during 2003 to accomplish this task. The CJIT-CTG team went through a series of conversations to specify the business problem and its context, and to identify feasible solutions and alternatives. This paper reports on a system dynamics model for understanding the dynamics of the socio-technical processes that took place during this project. This model building effort is looking for the development of a theory of interorganizational collaboration. The model is being developed in facilitated group model building (GMB) sessions with the team at CTG. Although the model presented in this paper is still preliminary, the model is capable to generate interesting scenarios with reasonable changes in the initial values of some parameters. Moreover, the model illustrates a powerful way to use group model building and simulation as theory-building tools.

## **Scripts for interrupted group model building: Lessons from modeling the emergence of governance structures for information integration across governmental agencies**

Proceedings of the Twenty-Second International Conference of the System Dynamics Society, Oct 2004, pp.83-84

The system dynamics group at Albany has been developing approaches to decision conferencing using a combination of group facilitation techniques linked to projected computer models in the room for more than 20 years. Over the years, the group has developed a series of pieces of small group processes to build system dynamics models with groups, i.e. scripts. The Group Model Building (GMB) process reported here has several characteristics that make it different from most other experiences in the group. While the common setting involves managers interested in tackling a specific problem, this work involves a research team interested in building theory about the complexity of intergovernmental information integration. Additionally, the reported GMB process took place in small sessions of two to three hours, while the common practice at Albany involves intensive one or two-day meetings. In this way, the paper will include general thoughts about the implications of these differences for the GMB process.

## **Modeling the social and technical processes of interorganizational information integration**

Proceedings of the Thirty-Seventh Annual Hawaii International Conference on System Sciences (HICSS 2004), Jan 2004, p. 50120.1

Government leaders and IT executives increasingly recognize that interorganizational information integration (III) is a critical and complex process. Due to the need for integrated information at all levels of government, interorganizational information integration can no longer be pursued through ad hoc approaches that primarily rely on intuitive understandings of the way government operates. This paper presents an effort currently underway to model the social and technical processes of interorganizational information integration to improve our understanding of information system development and of interorganizational collaboration. This research seeks to enhance both the conceptual and practical models of III by building new understanding of the interaction among the social and technical processes in interorganizational information integration.

## **Understanding New Models of Collaboration for Delivering Government Services**

Communications of the ACM, Volume 46, Number 1, 2003, pp 40-42

More and more government agencies are creating collaborative relationships to improve services they provide. This article presents a summary of an international research project that is studying eleven collaborative partnerships developed to deliver government information.

## **Electronic Government: A Vision of the Future that is Already Here**

Syracuse Law Review, Volume 52, Number 4, , 1243-1251

Though they may be going unnoticed, e-government initiatives are changing the way that the public sector works. This article introduces a four-faceted vision of e-government and describes some of the ways that it is already changing government.

## **Implications of Legal and Organizational Issues for Urban Digital Government Development**

Government Information Quarterly, Volume 18, , 269-278

Legal and organizational issues converge when developing digital government in large urban settings. This paper contends that this convergence is a powerful determinant of how these projects develop and how likely they are to succeed.

## **Realizing the Promise of Digital Government**

IMP Magazine, 2000

Many of us have already experienced the potential of the Web to change our relationships with other individuals, businesses, and now government. This article discusses the transformation needed before we can realize the promises of electronic government.

## **The Internet, the State Library, and the Implementation of Statewide Information**

## Policy

Journal of Global Information Management, Volume 7, Number 4, -December 1999, pp 27-33

Geographic Information Systems (GIS) are used by government, researchers, and businesses to support a wide range of activities. This article documents the implementation of an Internet-based GIS Clearinghouse in New York State, and highlights the role of the State Library as a critical implementer and value-added facilitator.

## Four Realities of IT Innovation in Government

The Public Manager, Volume 28, Number 1, 1999

Throughout CTG's partnership projects, there are four realities that stand out as success factors for IT innovation. This article presents the four recurring factors that we have encountered working on dozens of projects with hundreds of government individuals and organizations.

## Models for Action: Developing Practical Approaches to Electronic Records Management and Preservation

Bulletin of the American Society for Information Science and Technology, ly 1997

Organizations often lack adequate tools to manage the growing number and variety of electronic records. This article presents a set of practical tools that can help government agencies manage the records that are electronically created, maintained, and accessed.

## Book Chapters (7)



## Information Sharing and Public Health: A Case-based Look at the ICT Expectations-Reality Gap

In Albert Meijer, Kees Boersma, Pieter Wagenaar (Eds.) *ICTs, Citizens & Governance: After the Hype!* . pp.180-197. Amsterdam: IOS Press.

Sharing information across organizational boundaries is central to efforts to improve government operations and services. However, creating the capability necessary to enable information sharing across the boundaries of organizations is among the most difficult types of information technology projects. New knowledge about information sharing is required; in particular, new understanding about how government, non-governmental and private sector organizations come together to share information is necessary. This chapter draws on the experiences of key actors in three states in the United States as they organized to create new capability to share information as part of their responses to the West Nile virus outbreaks. The cases highlight the gap between expectations and reality, providing opportunity to more fully understand the gaps between expectations (the hype) about ICTs and the reality facing government practitioners who seek to use ICTs to share information. Examining the cases in terms of four contexts of information integration and sharing provides a more specific understanding about the gaps between these expectations and the reality (after the hype). The lessons learned in the context of public health include the central role of information sharing and the implications of resource constraints on data capture and use capability in the context of an outbreak management and surveillance effort. Insight into the interdependence of system design and process support and improvement in the context of public health surveillance was also found to be critical to future planning of public health surveillance systems. This chapter serves to reemphasize to both researchers and practitioners the need to close the gap between expectations and reality; the point is made again through the cases that closing the gap depends on strategies that draw on technology, process, interorganizational, and political perspectives and resources.

## Sustainable cross-boundary information sharing

In H. Chen, L. Brandt, V. Gregg, R. Traunmüller, S. Dawes, E. Hovy, A. Macintosh, & C. A. Larson (Eds.) *Digital government: Advanced research and case studies, and Implementation* . pp.421-438. New York: Springer.

Information is one of the most valuable resources in government. Government managers are finding however, that information needed to plan, make decisions, and act is often held outside their own organizations, maintained in disparate formats, and used for widely different purposes. Efforts to bring this data together across boundaries have provided new understanding into just how difficult cross-boundary information sharing is. Finding ways to bring together information and integrate it for use in solving pressing public problems is fast becoming a focus of attention for digital government practitioners and researchers alike. This chapter reports on one such study<sup>1</sup> of cross-boundary information integration that revealed three important lessons for creating and sustaining cross-boundary information sharing: 1) interoperability is key, 2) a shift in agency culture is necessary, and 3) the role of policymakers is central to this type of project. Four recommendations for action derived from the case studies are presented as well. Government executives and policy-makers need to ensure the creation of enterprise-wide mechanisms and capabilities such as (1) governance structures, (2) resource allocation models, (3) scalable strategies, and (4) non-crisis capacity.

## Building Collaborative Digital Government Systems: Systemic Constraints and Effective Practices

in W. McIver and A.K. Elmagarmid (Eds.) *Advances in Digital Government: Technology, Human Factors, and Policy* . New York: Kluwer.

[An Abstract for the book chapter would go here]

## MACROS: A Case Study of Knowledge Sharing System Development within New York State Government Agencies

In M. Khosrow-Pour (Ed.) *Annals of Cases on Information Technology, Vol 7* . Hershey PA: Idea Publishing Group.

[An Abstract for the book chapter would go here]

## Participants' Expectations and the Success of Knowledge Networking in the Public Sector

In W. Huang & K. Siau & K. K. Wei (Eds.) *Electronic Government Strategies and Implementations* . Hershey PA: Idea Publishing Group.

[An Abstract for the book chapter would go here]

## Pool the Risks, Share the Benefits: Partnerships in IT Innovation

In Keyes, J., (ed.) *Technology Trendlines* . New York: VanNostrand Reinhold.

[An Abstract for the book chapter would go here]

## The Challenge of Integrating Data for E-Government

*Global ICT Agenda 2002, #1*. 40-41. London: Quasar International Communications.

[An Abstract for the book chapter would go here]

## Working Papers (8)



## Building a State Government Digital Preservation Community: Lessons on Interorganizational Collaboration

Mar 2008

As a part of the National Digital Information Infrastructure and Preservation Program (NDIIPP), the Library of Congress sponsored a series of collaborative workshops between April and May 2005 to help state governments identify their needs and priorities for digital preservation. During these workshops, state and territory representatives showed strong interest in fostering partnership efforts and collaborative strategies toward preserving state government digital information. Based on the findings of the workshops and previous efforts on digital preservation, this paper discusses the challenges and opportunities regarding interorganizational collaboration and community building for digital preservation of state government information.

## Fostering Innovation in Electronic Government: Benefits and Challenges of XML for Web Site Management

Mar 2008

As government Web sites have grown in size, complexity, and prominence, Web site management, content management, maintenance costs, and accessibility have become growing concerns for federal, state and local governments. Government agencies are losing the ability to be responsive and flexible in providing new information and services and the costs of maintaining these Web sites have become prohibitive. Government webmasters and system administrators have come to realize that the technologies and strategies used in the past to build most Web sites are designed to produce individual Web pages. They do not provide a structure to easily maintain entire Web sites, keep them responsive to changing needs, or manage the workflow involved in Web content production and maintenance; nor do they facilitate the sharing and reuse of Web site content. This paper examines the potential of XML for Web site content management in government settings. Five state government agency teams were selected, looking for a mixture of several aspects such as technological expertise, organizational capabilities, agency size, and institutional environment. The study uses multiple research methods such as semi-structured interviews, surveys, and analysis of relevant documents to explore the benefits and challenges of using XML for Web site content management in government agencies. Overall, participants identified information consistency, reduction of data and content duplication, and compatibility with new devices and formats as the main benefits. Organizational and individual resistance to change, multiple and different priorities, and unrealistic goals were identified as the most important barriers. The paper also reports some differences in perceptions between technical and program staff.

## Building Response Capacity through Cross-boundary Information Sharing: The Critical Role of Trust

Mar 2008

Governments around the world are increasingly turning to information sharing and integration to help solve problems in a wide range of programs and policy areas. These complex interorganizational efforts face not only the technical challenges of many information technology initiatives, but also the difficulties derived from interacting among multiple and diverse organizations. Trust has been identified as one the most important organizational factors for cross-boundary information sharing and integration. However, more research is needed regarding the determinants of trust building in this multi-organizational contexts. This paper highlights the relevant role of trust in cross-boundary information sharing initiatives and provides evidence about three of its most important determinants.

## A Multi-Dimensional Approach to Digital Government Capability Assessment

Mar 2008

The issue of organizational capability is central to virtually all efforts to improve government performance, particularly in the area of information technology innovation. Capability assessment can play an important role in the digital government domain in at least two ways: one is to provide a basis for judging whether agencies are ready to initiate some digital government innovation, and the other is to judge the impact of a digital government initiative in terms of improved capabilities. Data on capabilities targeted by digital government initiatives can provide both baseline measurements and evidence of subsequent improvements. As part of its research and development on several digital government projects, the Center for Technology in Government (CTG) has developed an approach to capability assessment, resulting in specific assessment toolkits for use in different types of digital government initiatives. This paper describes the approach used in developing these toolkits generally, with an example from one version intended for use in justice information integration projects. The paper includes the theoretical rationale for the design of the toolkits, methods for their use, and implications for use in practice.

## **Critical Issues and Practical Challenges of IT Tools for Policy Analysis and Program Evaluation**

Mar 2008

Policy makers and public managers want and need to know how well government programs perform, but few have the information to accurately and continuously evaluate them. The dynamic nature of public programs, and the traditional methods used to assess them, compound this problem. Performance measurement and performance-based decisions can be improved by more sophisticated information systems designed for to support analysis and decision making. However, such systems demand close and continuing involvement of program staff, attention to programmatic context, and much better understanding of business processes and the data they generate. Through the use of a case example, the prototype Homeless Information Management System, this paper highlights how attention to these issues can lead to useful and usable performance analysis and evaluation systems.

## **Measures and Conditions of Success in Public Sector Knowledge Networks**

Mar 2008

Interorganizational networks are increasingly the subject of both theoretical and empirical research in sociology, economics, organizational behavior, and public and business management. While the most common network concepts and studies have focused on multi-organizational forms of production, “network” has also emerged as a way to describe how organizations share and integrate knowledge and information. This paper focuses on a type of network that is increasingly important in public affairs, but largely unaccounted for in the extant literature – the public sector knowledge network. The paper synthesizes and augments the existing literature to include public sector knowledge networks. It then identifies performance measures that can be used to evaluate them at the network, organizational, and individual levels of analysis and identifies critical success factors that pertain to each level.

## **Examining Digital Government Publication Trends**

Mar 2008

The purpose of this study was to assess the publishing patterns of digital government (DG) research in top scholarly journals in the fields of public administration (PA), public policy (PP), and management information systems (MIS) within the last five years (See Table 1). DG research was published in nine of the twelve top journals in these fields since 1999. A total of 114 DG articles were identified, representing approximately 4.9 percent of the total number of articles published in these journals between 1999 and 2003. It seems that the top journals have published DG research in limited ways given public and media attention and increased funding opportunities to conduct e-government research.

## **New models of collaboration for delivering e-government services: A dynamic model drawn from multi-national research**

Mar 2008

This paper presents a conceptual model of how organizations collaborate to deliver electronic public services.

The model is derived from a comparative study of 12 e-government collaborations in Canada, the US, and Europe that involved various combinations of public, private, and nonprofit organizations pursuing a variety of service objectives. The study draws on the literature of interorganizational relations, as well as management information systems, public management, and organizational behavior to devise a preliminary model of how such collaborations form and operate. The case study data are then compared to the preliminary model and a revised, more dynamic model is presented. The revised model more closely fits the case experiences across various service types, project structures, and national settings.

## Issue Briefs (9)



### Mobile Technology in the Public Sector: It's more than just the laptop

May 2008

One of the most difficult problems facing government managers who want to implement new technology is anticipating how it will affect work. Of course, the primary goal is to improve performance. However, it is nearly impossible to take into account all the human, organizational, and external influences that may impact how well that goal is achieved. Until the technology is put to work, planning is often little more than speculation. This is particularly true with mobile technology, which may have substantial potential, when combined with wireless networks, to expand the time, locations, and effectiveness of many types of government work. Fully exploiting this potential, however, presents a complex problem for government managers.

### Regional Coordination: Exploring new response capability

May 2008

A crisis rarely occurs in one jurisdiction or community; they tend to cross multiple geographic and organizational boundaries. The effects of the World Trade Center attacks, for example, extended far beyond New York City and the effects of Hurricane Katrina were felt far beyond the city of New Orleans. Events such as these continue to generate new insights into the coordination across boundaries necessary to ensure effective response to incidents—both natural and man-made.

### The Performance Measurement Puzzle

May 2008

There is a simple and persuasive proposition that is quite common in government policy and practice: better measurements of performance will lead to overall improvements in government. That proposition is fundamental to any notion of governing as rational decision making, from at least as far back as the Program Planning and Budgeting Systems (PPBS) and government accountability movements in the 1960's, up to the emergence of ComStat-style programs currently operating in many agencies. Performance measurement is central as well to

the President's Management Agenda for improving U.S. federal agency operations, and many similar initiatives that can be found in state agencies. In spite of this long history of concern with performance measurement, however, it remains a puzzling problem for governments at all levels.

## **A Capability-based View of Government IT Innovation**

May 2008

The obvious difficulty and high failure rate of information technology (IT) innovations in government and elsewhere have been central concerns in much of CTG's work over the past 15 years. Our first-hand experiences, coupled with reviews of the current research, highlight the importance of organizational capability as a critical success factor in IT innovation. It is clear that successful IT innovations, and the transformation they seek to support, depend at least as much on how well the organizations and individuals perform as on the chips, networks, and software. This finding led us, in turn, to further explore the concept of organizational capability and to work with government agencies to develop tools to enhance capability for IT innovation.

## **Collaboration and Information Sharing: Two Critical Capabilities for Government**

May 2007

Information is one of the most valuable resources of government. Government managers, however, are finding that the information needed to plan, make decisions, and act is often held outside their own organizations, collected for widely different purposes, and maintained in disparate formats. As a consequence, governments around the world are increasingly turning to information sharing as a strategy for maximizing the value of information in providing services and responding to problems. New practices are emerging at all levels; from town governments creating performance-based management capability by sharing information between departments such as police and highway, to state-level efforts to coordinate public safety practices, to national efforts responding to public health crises.

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

May 2007

Every investment decision requires a leap of faith—sometimes a large one—into an uncertain future. However, after decades of investments in information technology (IT), running into billions of dollars, governments worldwide are largely unable to convincingly demonstrate a return on investment (ROI) that is widely understood or based upon well-grounded measures. While most can agree that government has been dramatically changed by IT, and many programs and services are more effective and less expensive as a result, government agencies are finding it increasingly difficult to communicate the public benefits of these investments.

## **Managing and Preserving State Government Digital Information**

May 2007

Information and records custodians such as state archives, records management agencies, and libraries have traditionally provided long-term public access to significant government information in paper and other traditional formats. More and more, however, this information is being created solely in digital form. Much of it has only short-term value, but a considerable fraction must remain available for many years, or in some cases, permanently. Digital information with long-term cultural and historical value can include anything from California's official state budget, which is now issued exclusively in digital form, to digital recordings of legislative sessions, to the electronic correspondence of key government officials.

## **Tools for Enabling the Next Stage of e-Government**

May 2007

As e-government advances beyond the early stages of basic information access and simple interactions toward active engagement of citizens and agencies, the tools enabling this progression will be those that promote networking and collaboration while addressing issues of data portability, reusability, and longevity. The flow of information will be the focus as government adapts to new demands for sharing, accessing, and distributing information.

## Internationalizing Digital Government Research

May 2007

For most of us, the idea of “government” is linked to a particular place. We associate government with a town hall, state house, or capital city and with the laws and policies that apply to the people and organizations located within a specific piece of political geography. Your local government provides fire protection, your state issues professional licenses, the national government defines what it means to be a citizen of your country. At the same time, we recognize that governmental jurisdictions and programs often overlap within a single country. Think about taxation structures, emergency services, transportation networks, and schools as just a few examples.